The Maine Youth Drug and Alcohol Use Survey (MYDAUS)

Results of the Spring 2000 Survey

Photo by Jari Feldt

February 2001

Maine Office of Substance Abuse
Department of Mental Health, Mental Retardation and Substance Abuse Services

Maine Youth Drug and Alcohol Use Survey (MYDAUS)
State of Maine Report
2000

Prevalence of Alcohol, Tobacco, and Other Drugs, Prohibited Behaviors, and Risk and Protective Factors Among Students in the State of Maine

Prepared by:

State of Maine
Office of Substance Abuse (OSA)
Department of Mental Health, Mental Retardation, and Substance Abuse Services

In conjunction with:

Pan Atlantic Consultants

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This information is available in alternate formats upon request.

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The development and implementation of the 2000 Maine Youth Drug and Alcohol Use Survey (MYDAUS) was a collaborative effort between the Maine Office of Substance Abuse (OSA) in the Department of Mental Health, Mental Retardation and Substance Use Services (DMHMRSAS), the Social Development Research Group (SDRG) at the University of Washington, and Pan Atlantic Consultants (PAC). In addition to the Maine Office of Substance Abuse which oversaw the entire project, specific duties of the other agencies were as follows:

Pan Atlantic Consultants
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- Responsible for all survey administration activities
- Provided schools and school systems with individual reports
- Responsible for weighting the data, data analysis, and report production

The Social Development Research Group
University of Washington
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- Developed the survey instrument and syntax relating to survey validity testing
- Provided the risk and protective factor framework

Jamie Clough (OSA) served as the Project Leader and Kristina Morse (PAC) served as the Project Manager. Others whose efforts on this project should be noted include: Melanie Lanctot (OSA), Linda Williams (OSA), Rebecca Matusovich (OSA) and Melanie McCoy (PAC).

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INTRODUCTION

Background

Substance abuse is one of the nation's biggest health problems. Because of the negative consequences associated with substance abuse among adolescents -- such as suicidal behavior, delinquency and violence, and high-risk sexual behavior -- substance use can create both acute and long-term problems for students and their families. Given the high prevalence and devastating impact of substance abuse, the problem of drug and alcohol abuse is a high priority for federal, state, and local governments.

At the state and local levels, developing and targeting effective prevention and intervention strategies and evaluating their impact requires solid information on the extent of alcohol and drug use among adolescents. The MYDAUS was instituted by the State of Maine to obtain such information about the nature, severity, and range of substance use and abuse among adolescents and to better plan its primary and secondary prevention efforts.

The MYDAUS has been administered periodically by the Office of Substance Abuse (OSA) since 1988. The overall goal of the survey series is to identify patterns of alcohol, tobacco, and other drug use among middle and high school students in Maine, and to estimate the number and characteristics of students in this age group who are at elevated risk of drug use and related problems. These risk and protective factors are found at multiple levels, including the individual, the family, the peer group, the school, and the community. Identification of specific populations in which risk factors are high, and protective factors are low, permits the targeting of interventions where they can have the most impact.

The 2000 MYDAUS measures the prevalence of alcohol, tobacco, and other drug use, as well as risk factors for such use. The survey is part of a larger effort to help communities promote the "resiliency" of young people by reducing high-risk behaviors and by increasing healthy behaviors. The survey allows the Office of Substance Abuse and other state agencies to: monitor the trends in the substance use of Maine students; compare students in each county with students across the state as a whole; and plan, evaluate, and improve community programs that prevent health problems and promote healthy behaviors.

This report on the statewide results from the most recently administered survey in the series will begin the process of distinguishing various population subgroups with respect to their risk and protective factor profiles. Major deviations in the data based on grade, gender, or race/ethnicity will be discussed.

Administration

OSA decided to solicit *all* public schools in Maine with any grades 6 through 12 to participate in the survey in order to increase usable data and to provide local, objective data to schools applying for funds under the Safe and Drug Free Schools and Communities Act. In the end, only those schools that volunteered to take part in the survey were included in the sample. Table 1 illustrates the resulting school participation rates by county.

Data were collected from 180 of the 449 public schools with grades 6 through 12 in Maine; this resulted in a school response rate of 40%. School response rates varied across counties, ranging from a high of 76% in Washington County to a low of 14% in Franklin County. Altogether, 30,491 students of the 39,480 total students in the participating schools returned usable questionnaires, representing a student response level of 77%. The percentage of participating students varied across counties, ranging from a high of 84% in Hancock County to a low of 54% in Somerset County. The overall response rate for the 2000 MYDAUS, taking into consideration both the school and student response rates, was 31% (school response rate X student response rate; 40% X 77% = 31%).

This 'census' sample design has both positive and negative implications. On the positive side, these data provide an indication of drug use, and risk and protective levels for schools and counties that would not otherwise be available. However, a census sample is limiting in that the data collected are representative only of the schools which participated in the survey (not of the schools in the state as a whole), and the ability to compare the Year 2000 data with data collected in previous years is limited due to changes in methodology. The reader should bear this qualification in mind, particularly when judging statements of a comparative nature, such as those made among different grades, genders, and race/ethnicities.

While the MYDAUS is a large and extremely useful survey for Maine citizens and it is an excellent source of data for assessing substance abuse and prevention needs among Maine's school-aged youths, some other limitations with this data source should be noted. The exclusive focus of the MYDAUS is on adolescents in school. With such a focus, some adolescent subpopulations, such as school dropouts, and homeless and runaway youths, may be missed or undercounted.

Table 2 illustrates select demographic characteristics of the Year 2000 survey respondents. Because of the relatively small numbers of African American, Hispanics, Asian or Pacific Islanders, American Indians, and youths in other racial/ethnic groups, these racial/ethnic categories are often combined into one category, 'non-white'.

TABLE 1: School, Student, and Overall Response Rates for the 2000 MYDAUS

County	Number of Schools (6-12)	Number of Schools that Participated	School Response Rate	Number of Students in all Schools (6-12)	Number of Usable Surveys	Student Response Rate (vs. eligible)	Number of Students in Participating Schools	Student Response Rate (vs. participating)
	1	2	3	4	5	6	7	8
Androscoggin	35	13	37%	9,017	2,327	26%	3,209	73%
Aroostook	42	26	62%	6,932	3,628	52%	4,456	81%
Cumberland	49	16	33%	22,919	6,231	27%	7,826	80%
Franklin	14	2	14%	2,933	256	9%	355	72%
Hancock	35	11	31%	4,364	685	16%	812	84%
Kennebec	33	9	27%	10,236	1,604	16%	2,091	77%
Knox	17	6	35%	3,004	1,398	47%	2,062	68%
Lincoln	17	3	18%	2,817	598	21%	776	77%
Oxford	21	13	62%	5,583	2,809	50%	3,781	74%
Penobscot	44	10	23%	13,251	2,772	21%	3,365	82%
Piscataquis	7	5	71%	1,597	1,043	65%	1,322	79%
Sagadahoc	14	7	50%	3,612	681	19%	796	86%
Somerset	27	6	22%	4,924	437	9%	805	54%
Waldo	16	11	69%	2,894	1,191	41%	1,619	74%
Washington	38	29	76%	3,039	1,752	58%	2,248	78%
York	40	13	33%	15,516	3,079	20%	3,957	78%
TOTAL	**449**	**180**	**40%**	**112,638**	**30,491**	**27%**	**39,480**	**77%**

Notes:

1 Source: Maine Department of Education, July, 2000

2 Source: Maine Youth Drug and Alcohol Use Survey, 2000

3 Equation: Column 2/Column 1

4 Source: Maine Youth Drug and Alcohol Use Survey, 2000

5 Source: Maine Youth Drug and Alcohol Use Survey, 2000

6 Equation: Column 5/Column 4

7 Source: Maine Youth Drug and Alcohol Use Survey, 2000

8 Equation: Column 5/Column 7

TABLE 2: Demographic Characteristics of the 2000 MYDAUS Sample

	Unweighted Number	Unweighted Percent	Weighted Percent
Total	30,491	100.0%	100.0%
Grade in School			
6th	4,747	15.6%	15.6%
7th	5,002	16.4%	15.3%
8th	5,213	17.1%	15.6%
9th	4,432	14.5%	14.5%
10th	4,035	13.2%	13.6%
11th	3,672	12.0%	12.6%
12th	3,002	9.8%	11.6%
Missing	388	1.3%	1.2%
Gender			
Female	15,125	49.6%	49.7%
Male	14,551	47.7%	47.6%
Missing	815	2.7%	2.7%
Age (years)			
11 or younger	2,268	7.4%	7.5%
12	4,591	15.1%	14.7%
13	4,939	16.2%	14.8%
14	4,681	15.4%	14.5%
15	4,238	13.9%	14.1%
16	3,883	12.7%	13.0%
17	3,560	11.7%	12.8%
18 or older	2,100	6.9%	8.0%
Missing	231	0.8%	0.7%
Race/Ethnicity			
White, not of Hispanic Origin	26,286	86.2%	86.3%
Black or African American	404	1.3%	1.3%
American Indian*	807	2.6%	2.6%
Spanish/Hispanic/Latino	348	1.1%	1.2%
Asian or Pacific Islander	483	1.6%	1.6%
Other	765	2.5%	2.5%
Missing	1,398	4.6%	4.4%

**Includes Native American, Eskimo, and Aleut*

OVERVIEW AND IMPLICATIONS

Effective prevention requires that consistent messages encouraging healthy choices be delivered by multiple messengers—schools, parents, peers, and the community—repeatedly throughout childhood and adolescence.[1] The greater the engagement of all of these groups, the higher the chances of success. While the trends in the MYDAUS 2000 survey are encouraging, it must be remembered that all the percentages represent real people. Research indicates that for every year adolescents delay use of alcohol, they decrease the odds of lifelong dependence by 15% and lifelong abuse by 8%. The results are similar for drugs—reductions of 5% for lifelong dependence and 4% for lifelong abuse—for every year they delay initial use.[2] Research also shows that youth who delay substance use until age 21 almost never develop substance abuse problems. Prevention efforts must target each new generation or else the hard won gains will quickly disappear.

The MYDAUS was administered in 1995, 1996, 1998/1999, and 2000. These earlier data provide important comparisons to the 2000 values for the purpose of monitoring any changes in drug use behaviors over time among Maine school students. Although such comparisons can be useful, it is very important to note that there have been significant changes in methodology throughout the history of the survey that may have impacted the results; therefore, any comparisons between the data should be made with caution (see Appendix A for a discussion of differences in survey methodology).

Despite these caveats, the data suggest several noteworthy reductions over the past 5 years in several categories of use among 6th through 12th graders (see page 6):

- 20% reduction in the prevalence of lifetime cigarette smoking (from 52.8% in 1995 to 42.4% in 2000)
- 31% reduction in the prevalence of past-month cigarette smoking (from 25.1% in 1995 to 17.3% in 2000)
- 19% reduction in the prevalence of past-month alcohol consumption (from 38.0% in 1995 to 30.6% in 2000)
- 21% reduction in the prevalence of past-month marijuana use (from 19.4% in 1995 to 15.4% in 2000)
- 22% reduction in the prevalence of hallucinogen (LSD and other psychedelics) use (from 9.7% in 1995 to 7.6% in 2000)

In addition, the following good news can be reported:

- A 46% reduction in inhalant use, from 8.7% in 1995 to 4.7% in 2000.
- A 16% reduction in binge drinking within the past two weeks, from 18.5% in 1995 to 15.5% in 2000.
- A 28% reduction in the proportion of students who felt it would be "very easy" to obtain cigarettes, from 59.2% in 1995 to 42.9% in 2000.
- A 20% reduction in the proportion of students who felt it would be "very easy" to obtain alcohol, from 37.9% in 1995 to 30.2% in 2000.

[1] "Preventing Adolescent Substance Abuse", Research Update. May, 2000
[2] Ibid.

Prevalence of Lifetime and Past Month Substance Use Among the Maine Student Population in Grades 6-12: 1995 to 2000

	Lifetime				Past Month			
	1995	1996	1998/99	2000	1995	1996	1998/99	2000
Alcohol								
6th grade	41%	37%	25%	24%	11%	10%	8%	8%
7th grade	60%	59%	36%	36%	24%	25%	15%	16%
8th grade	72%	70%	53%	51%	36%	36%	26%	25%
9th grade	78%	77%	63%	63%	45%	44%	35%	35%
10th grade	81%	85%	71%	73%	50%	51%	40%	42%
11th grade	83%	86%	80%	78%	53%	52%	48%	44%
12th grade	89%	88%	85%	82%	61%	59%	54%	51%
Marijuana								
6th grade	6%	4%	2%	4%	2%	2%	1%	2%
7th grade	13%	15%	7%	9%	7%	9%	3%	5%
8th grade	26%	26%	17%	18%	16%	17%	8%	10%
9th grade	40%	38%	31%	32%	28%	21%	18%	17%
10th grade	41%	50%	41%	43%	28%	33%	23%	24%
11th grade	46%	50%	51%	51%	29%	31%	28%	26%
12th grade	57%	53%	58%	55%	36%	29%	30%	29%
Cigarettes								
6th grade	24%	22%	14%	17%	6%	6%	3%	4%
7th grade	38%	39%	26%	27%	15%	18%	8%	8%
8th grade	54%	51%	40%	36%	24%	24%	14%	14%
9th grade	62%	59%	50%	46%	32%	29%	21%	18%
10th grade	65%	68%	57%	56%	32%	37%	25%	24%
11th grade	64%	69%	61%	62%	34%	39%	31%	27%
12th grade	73%	68%	68%	63%	41%	33%	36%	31%
Inhalants								
6th grade	12%	13%	12%	11%	6%	7%	6%	5%
7th grade	22%	23%	14%	14%	11%	12%	6%	7%
8th grade	30%	23%	20%	15%	17%	11%	8%	6%
9th grade	22%	22%	17%	14%	7%	8%	6%	4%
10th grade	20%	22%	16%	14%	5%	6%	4%	4%
11th grade	18%	15%	14%	12%	5%	4%	3%	3%
12th grade	17%	14%	14%	13%	4%	3%	3%	2%
Cocaine								
6th grade	1%	2%	1%	2%	<1%	<1%	<1%	<1%
7th grade	3%	4%	2%	2%	2%	1%	<1%	1%
8th grade	6%	6%	3%	4%	2%	2%	1%	2%
9th grade	5%	5%	5%	5%	2%	2%	2%	2%
10th grade	6%	7%	5%	6%	2%	1%	1%	2%
11th grade	5%	4%	6%	7%	1%	1%	2%	2%
12th grade	11%	5%	7%	8%	2%	2%	2%	3%
LSD or Other Psychedelics								
6th grade	2%	1%	1%	1%	1%	<1%	<1%	<1%
7th grade	4%	5%	1%	2%	2%	3%	<1%	1%
8th grade	9%	8%	4%	4%	4%	4%	2%	2%
9th grade	12%	10%	8%	7%	7%	5%	4%	3%
10th grade	10%	16%	9%	11%	5%	6%	4%	4%
11th grade	15%	13%	13%	13%	6%	5%	5%	4%
12th grade	23%	15%	16%	17%	7%	5%	5%	4%

In Maine, alcohol, tobacco, and marijuana continue to be the most commonly used substances by students in grades 6 through 12. In the month before the survey, approximately 30% of students had used alcohol, 17% had smoked cigarettes, and 15% had used marijuana. Other areas of particular concern include:

- Approximately 30% of 12th graders reported binge drinking within the past two weeks.
- The two most prevalent community risk factors were "Perceived availability of drugs" and "Laws and norms favorable toward drug use."
- Regarding prohibited behavior gathered in the MYDAUS 2000 survey, the proportion of males in the survey reporting prohibited behavior was generally twice as large as the proportion of females. Students were most likely to report having been drunk or high at school (14%), followed by having attacked someone (12%), and having been suspended (11%).
- Among 10th through 12th graders, 12% reported having sold illegal drugs in the twelve months prior to the survey.

In order to provide a broader perspective on the rates of substance abuse among Maine students, the MYDAUS results were compared to those from the national survey, Monitoring the Future (MTF). MTF is an ongoing study of the behaviors, attitudes and values of American secondary school students, college students and young adults. Each year, a random sample totaling approximately 50,000 students in the eighth, tenth, and twelfth grades are surveyed, which provides a reliable sample for comparison[3]. (See page 8 and 9) However, because the MYDAUS and MTF surveys employ different methodologies, it is important to use caution when comparing the results.

- Comparing the MYDAUS and MTF results shows higher past month use of alcohol among Maine's 8th, 10th, and 12th graders, with the greatest difference being between the MYDAUS and the MTF 8th graders (25% vs. 22% respectively).
- A greater proportion of MYDAUS 10th and 12th graders used marijuana than did the 10th and 12th graders in the U. S. sample. The greatest difference was in 30-day use among 12th graders; 29% of MYDAUS 12th graders were current users versus 22% of the MTF 12th graders.
- Seventh and eighth grades were the MYDAUS student's peak grades for inhalant use. The prevalence of past month inhalant use was slightly higher for the MYDAUS 8th and 10th graders than for the 8th and 10th graders in the MTF survey.
- The use of LSD and other hallucinogens tended to be more prevalent among the MYDAUS students than among the U.S. students. This was especially true for lifetime use among 12th graders (17% of MYDAUS 12th graders versus 13% of MTF 12th graders.)

In 1995, OSA began using outcome-based funding which requires that prevention providers focus on positive changes in participants' behavior that can be documented. As the science of prevention has advanced, OSA has worked to move the field toward the use of researched based strategies and sound evaluation techniques through the Request For Proposals process and in Safe and Drug-Free Schools and Communities Act applications.

Environmental strategies have been used with increasing frequency in the past 10 years, and are a powerful tool in our society's effort to reduce the toll of alcohol, tobacco, and other drug problems. Although they build on and complement traditional prevention efforts aimed at changing individual decisions, environmental strategies involve a fundamental shift in perspective. In an environmental

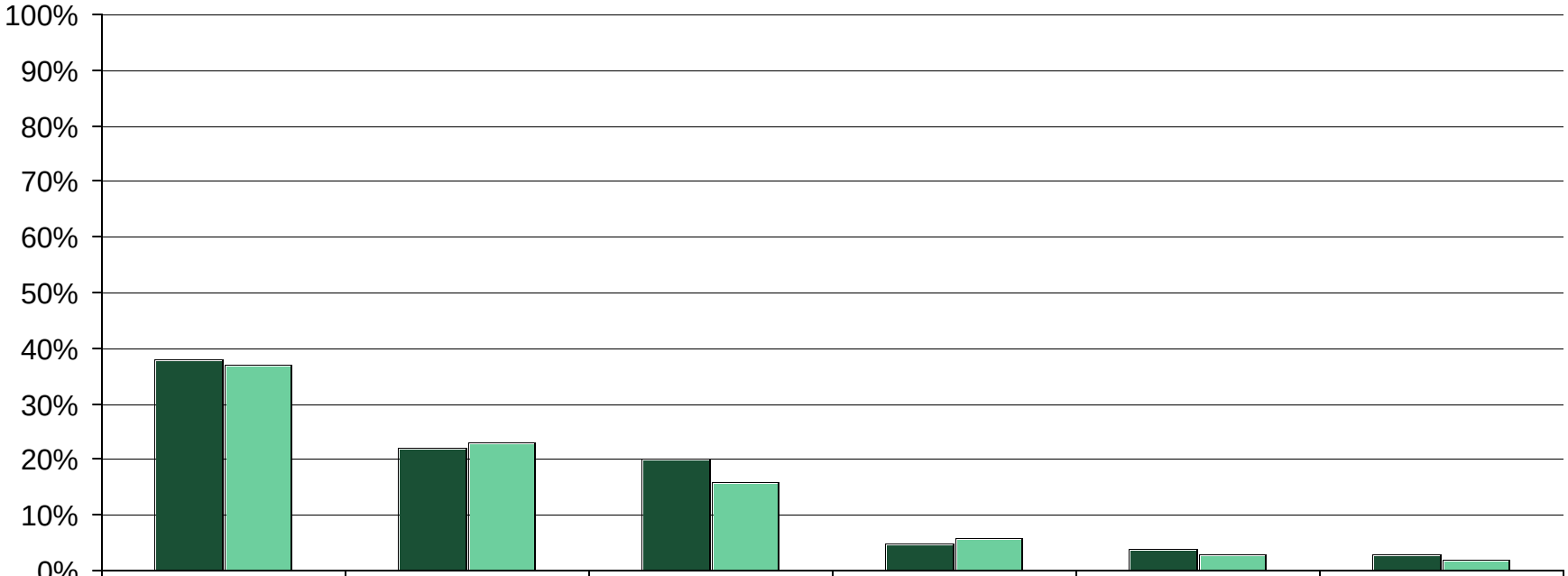
[3] 12th graders have been surveyed since 1975, and 8th and 10th graders have been surveyed since 1991.

Prevalence of Lifetime and Past Month Substance Use Among the Maine Student Population Versus The National Student Population: 2000

	Lifetime		Past Month	
	MYDAUS 2000	MTF 2000	MYDAUS 2000	MTF 2000
Alcohol				
8th grade	51%	52%	25%	22%
10th grade	73%	71%	42%	41%
12th grade	82%	80%	51%	50%
Marijuana				
8th grade	18%	20%	10%	9%
10th grade	43%	40%	24%	20%
12th grade	55%	49%	29%	22%
Cigarettes				
8th grade	36%	41%	14%	15%
10th grade	56%	55%	24%	24%
12th grade	63%	63%	31%	31%
Smokeless Tobacco				
8th grade	10%	13%	4%	4%
10th grade	18%	19%	5%	6%
12th grade	24%	23%	6%	8%
Inhalants				
8th grade	15%	18%	6%	5%
10th grade	14%	17%	4%	3%
12th grade	13%	14%	2%	2%
LSD or Other Psychedelics/Hallucinogens*				
8th grade	4%	5%	2%	1%
10th grade	11%	9%	4%	2%
12th grade	17%	13%	4%	3%

* *MYDAUS asked about use of LSD or other psychedelics*
MTF asked about use of hallucinogens, including LSD

Prevalence of 30-Day Use of Alcohol, Tobacco, and Specific Illegal Drugs Among Maine Students (Grades 8, 10, 12) versus U.S. Students, 2000



	Alcohol	Cigarettes	Marijuana	Smokeless Tobacco	Inhalants	LSD
Maine	38%	22%	20%	5%	4%	3%
U.S.	37%	23%	16%	6%	3%	2%

Source of Maine data: MYDAUS, 2000; Source of U.S. data: Monitoring the Future, 2000

or systems approach, alcohol, tobacco, and other drug use are seen as community issues and a reflection of the community's norms or practices. Individual behavior is seen as being influenced by a complex interaction of many factors. These factors include such immediate influences on the individual as family norms and behavior and peer pressure. They also include broader areas, such as school, workplace, neighborhood, religious institutions, and communities. Further influences include the media, laws and policies, enforcement efforts, pricing practices, and the ease of availability in obtaining different substances. Environmental strategies target overarching factors that affect the community as a whole, changing the shared environment in order to discourage substance abuse. For instance, these strategies can be used to address underage drinking and smoking through retailer education, consistent enforcement of laws related to selling or furnishing to minors, party patrols, and other activities. Community risk factors identified by the 2000 MYDAUS survey, including laws and norms favorable to drug use and perceived availability of substances, are also best addressed by environmental strategies.

Another set of promising strategies focuses on increasing the bonding and involvement of youths with their families, schools, communities, or a significant role model or mentor. Current research in the prevention field has identified opportunities for bonding and involvement as one of the most salient protective factors in terms of preventing substance abuse and other problematic behaviors. Increasingly, the importance of multiple bonds is being recognized—youths need these opportunities in all the major arenas in their lives: peers, family, school and community. Although the importance of the parent-child bond has always been acknowledged and was strongly documented by the National Longitudinal Study of Adolescent Health (Resnick et al., 1997), the prevention field is increasing the attention paid to the importance of the bonds between youths and their peers, their teachers, and other adults in their communities. Young people frequently cite a lack of opportunities for involvement in their communities as one of their primary concerns, and they express a desire for additional opportunities to build meaningful relationships with adults. Bonding strategies can decrease the risk of substance abuse and other problematic behaviors and strengthen protective factors. Parenting programs to reduce the risk factors of poor family management techniques and family conflict could be offered while working to strengthen family attachment. Other programs could address the school risk factors of low academic achievement and low commitment to school through mentoring and utilizing an advisor/advisee system. Programs that increase opportunities for pro-social bonding should be built into future prevention initiatives.

Schools have a critical role to play in the prevention of substance abuse. Comprehensive (K-12) programming using researched and evaluated programs bear the most chance of success. Using the survey data to examine changes in use patterns and risk/protective factors across different grade levels can help schools to time their strategies most effectively. For instance, schools need to focus on the middle school years to prevent or delay the initiation of substances. The data also indicate that strategies focusing on inhalants need to be targeted to this age group. Conversely, the tenth graders emerge as the grade level with the highest overall level of risk factors and the lowest level of protective factors. Therefore, the early high school years should be examined carefully for opportunities to improve this pattern.

Without broad based strategies involving all segments of society, the efforts of schools alone will have limited effectiveness. Systemic change on multiple levels is the most effective way to have an impact on the current and future issues involving substance abuse and related problems. Adoption of environmental strategies and programs that provide and foster opportunities for bonding and meaningful involvement hold much promise. This programmatic expansion would complement the existing prevention efforts in the State of Maine.

SUGGESTIONS FOR USING THE DATA

A very valuable tool for program planning and evaluation is the Logic Model.[4] The first step of constructing a Logic Model is to conduct a needs assessment. The data from the 2000 MYDAUS survey is rich with information that identifies which substances are of most concern and which risk and protective factors merit attention. The data also satisfies Principle One of the Principles of Effectiveness[5] and serves as a baseline for future comparisons.

The next page shows a Logic Model that was constructed after a community examined their survey data and found that there was a significant increase in reported drug use between eighth and ninth grade. Of particular concern was the increase in the reported 30-day use of alcohol and tobacco. Using the data, the group determined the long-term outcome they desired to achieve – a reduction in the percent of ninth grade students reporting drug use in the past thirty days. It was determined that students in the middle school and their parents would be targeted for several interventions with the expectation that the next MYDAUS survey would document their success in achieving this outcome.

Next, they assessed the available resources (inputs), such as funding, staff, time, space, and supplies. Activities were planned to achieve their outcomes. These activities were designed to provide not only factual information but also skills that students would need. After looking at several researched and evaluated curricula, Project Alert[6] was chosen as the best match for the desired outcomes and the resources available. Another component was developed to provide support for eighth graders as they transition to high school. In addition, it was decided to develop programming to target risk factors shown to be of concern in the community by adding a parenting component to the Logic Model.

The activities that quantify each program (outputs) were identified, such as the number of sessions held, and the length of each session. Prevention research shows that booster sessions are critical for program success. Thus, even though seventh graders were the target audience for the new curriculum, booster sessions were given during grade eight. The curriculum chosen for both students and parents had not only knowledge components but also provided time for participants to learn and practice new skills.

Initial outcomes generally involve a change in knowledge, attitude, or skills. Changes in performance or behavior are listed as intermediate outcomes, and long-term outcomes tend to produce improved health status or better quality of life. You will see the anticipated outcomes chosen for each category in the Logic Model.

The next step was to establish targets. These are numerical objectives for each outcome. For our long term outcome, it was decided that keeping the percent of ninth grade students who report no drug use in the previous 30 days at the same level as eighth grade would be success. Once targets are set, a way to measure attainment of the target is also needed. Data from the MYDAUS survey (2002) will be used to document program success. Targets for initial and intermediate outcomes would also need to be written along with a method of verification.

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[4] For more information on the Logic Model, see Measuring Program Outcomes: A Practical Approach, United Way of America, 1996.

[5] In July 1, 1998, the United States Department of Education instituted the Principles of Effectiveness as a way to measure outcomes for Safe and Drug Free Schools and Communities Act grant monies. Contact the Information and Resource Center to receive a copy of all four Principles of Effectiveness.

[6] A 2-year curriculum emphasizing the development of skills for resisting the pressure to use alcohol, tobacco and other drugs.

Sample Logic Model

Inputs	***Activities***	***Outputs***	**Initial Outcomes**	**Intermediate Outcomes**	**Long Term Outcomes**
Health teacher SDFSCA funding Project Alert curric ulum Classroom equipped with teaching materials	Project Alert curriculum is implemented with fidelity	All seventh graders attend 11sessions of 45 minute duration All eighth graders attend three booster sessions, 45 minutes in length	Students learn and practice resistance skills Students learn information on alcohol, tobacco, and other drugs including inhalants	Students apply skills in other settings Misperceptions of actual student use are corrected.	Reduction in the percent of ninth grade students reporting 30-day drug use
SDFSCA funding High school students Staff advisor Community member with experience training peer helpers	Students and parents attend orientation to high school Peer helpers are identified and trained Incoming freshmen are matched with high school peer helper	Two hour orientation is held Ninth graders meet with their peer helper for 30 minutes at least once a week during the first semester	Students' fear of high school is reduced Students learn about procedures and available resources Parents learn ways to support their child's safe and healthy transitions Incoming students have positive role models Students attend school regularly	Students feel connected to their school 9th grade attendance improves over last years Students have higher GPA	Reduction in the percent of ninth grade students reporting thirty-day drug use.
Staff person Parenting curriculum Newsletter Classroom space	Parenting classes/groups publicized and offered	Parents attend four weekly sessions of 2 hours each	Parents learn positive family management techniques	Family conflict is reduced Parents discuss "no use" rules with children Parents monitor and enforce rules	Reduction in the percent of ninth grade students reporting 30-day use

Other suggestions for using the data effectively are:

1) Hold small discussion groups with students about their reactions to the data. Use this opportunity to emphasize how many students are not using drugs. Students frequently believe that "everyone is using drugs" and need accurate information to support their decision not to use drugs. Release the results and encourage parents to initiate discussions with their son or daughter and reinforce their rules about no use. Share the data with community coalitions and agencies so that others can work to mobilize a comprehensive community response.

2) If limited funding for school programs is available, the data can be used to decide which grades to target. At the middle school level, it is recommended that every student participate in the curriculum. In addition to alcohol, tobacco and marijuana information, the data indicate that it is important to include information on inhalants for middle school students. Some schools have an effective comprehensive program at the middle school level already, and the data may suggest that new initiatives target certain behaviors or risk and protective factors at the high school level.

Additional Information on Prevention Strategies

1) High school programs should include universal, selective, and indicated strategies[7]. Frequently, programming is non-existent at the high school level. As the pressure to use drugs increases, youths need to hear messages that support their "no use" decision or to benefit from efforts to reduce use if they are already experimenting.

2) A comprehensive program that begins in kindergarten and continues through high school produces the best results. Integrating the school response with a variety of community strategies will maximize effectiveness.

3) Youth tend to be focused on the short term. Information about health consequences needs to include compelling, immediate reasons why not to use drugs. For instance, mentioning that smoking causes bad breath and that yellow teeth are not attractive may hold more importance than the long-term risk of lung cancer. The financial costs can also be a powerful motivator. Ask students to calculate the cost of smoking a pack of cigarettes per day for a year. Then ask students what they could purchase with that amount. Discussing the way people who drink in excess often exhibit impaired judgment and lose the respect of others can turn some students away from alcohol. The real possibility of date rape can be a strong deterrent for young women not to use alcohol or other drugs.

4) Several strategies have been shown NOT to work in prevention of alcohol, tobacco, and other drug use. These include:
   - Information-only programs about negative effects of drugs
   - Programs that focus only on increasing self-esteem
   - Scare tactics

[7] Universal strategies are those appropriate for all students. Most curricula are designed to be taught to the total school population. Selective strategies identify and assist youth with certain risk factors to obtain needed prevention and/or intervention services. Support groups for children of alcoholics would be a selective strategy. Indicated strategies target youth who are already using substances. Reconnecting Youth is an example of an indicated strategy. This program targets those at risk of dropping out of school and works on increasing school attendance and GPA, decreasing substance abuse, and mood management, particularly anger and depression.

- Ex-addict testimonials as a universal prevention strategy
- One time, single strategy prevention campaigns

5) Conversely, several approaches have been consistently shown to produce results.
   - Grounding your program in research and implementing proven programs as originally designed (with fidelity) is effective. Collecting data and evaluating both your program implementation and its impact on behavior is critical.
   - Developing comprehensive programs on the school and community level ensures a consistent message and promotes the norm that it isn't "cool to use".
   - Designing a Logic Model prior to beginning a program helps your chances of success. A blank copy is included with this section. If a program is already in place, it is still valuable to use a Logic Model to articulate your expected outcomes in order to be sure that your activities are the best ones to achieve those outcomes.
   - Including a media literacy component can be valuable. The rebelliousness often associated with adolescence can be focused against companies that are trying to manipulate their behavior through marketing techniques.
   - Involving youth in planning and evaluating prevention programs is essential.
   - Addressing risk factors and building protective factors in your community not only offers the promise of decreasing substance abuse but also of preventing violence and other antisocial behaviors.

6) The Information and Resource Center (IRC) of the OSA has a wealth of print and video materials. You can contact the IRC at (207) 287-8900 or 1-800-499-0027 or visit the OSA website at http://www.state.me.us/dmhmrsa/osa. Prevention Specialists at OSA are also available to help you. You can call (207) 287-2595 and ask to speak with one of them.

7) Youth decisions about using alcohol, tobacco, and other drugs are not made in isolation. These decisions are influenced by many factors in their social environment. Youth receive many mixed messages about the risks and benefits of alcohol, tobacco, and other drugs in our society. Adults must also examine their own behavior and identify any ways in which they support, enable, or even encourage youth substance use. We must work to change these adult behaviors and environmental conditions if we hope to see more youth making healthy decisions.

8) While there is certainly much work to be done, we must also highlight the positive trends reflected in the 2000 survey data. Prevention efforts around the state **are** having an impact. We have seen a reduction in use across every grade level in the past five years. Share the good news with adults and youth in your communities and celebrate the positive change and healthy choices that are occurring.

Logic Model

Needs Assessment_____

Inputs	***Activities***	***Outputs***	***Initial Outcomes***	**Intermediate Outcomes**	**Long term outcomes**

PREVALENCE OF ALCOHOL, TOBACCO, AND OTHER DRUG USE

Students were asked a series of questions relating to their experience with tobacco, alcohol, and other drugs. For most substances, students were asked to report on their lifetime use of the specific drug as well as their use of the specific drug in the 30 days preceding the survey.

Note: Opiate use and "club drugs" were not on the 2000 MYDAUS, though there are plans to add questions pertaining to their use in 2002.

Alcohol:

Lifetime Use. Alcohol was the substance most likely to have been used by the students surveyed. However, 43.3% of those surveyed have *never* had more than a few sips of alcohol in their lifetime. Reported medium use (6-19 occasions) and high use (20 or more occasions) of alcohol increased with grade. Low use peaked during the 9th grade, while high use increased from 1.1% among 6th grade students to 35.8% among 12th graders.

While a greater proportion of female students than male students reported low use (28.6% versus 26.1%), male students were more likely than female students to report high use of alcohol in their lifetime (17.1% versus 12.8%). High use was more prevalent among non-white students (17.3%) than among white students (14.8%).

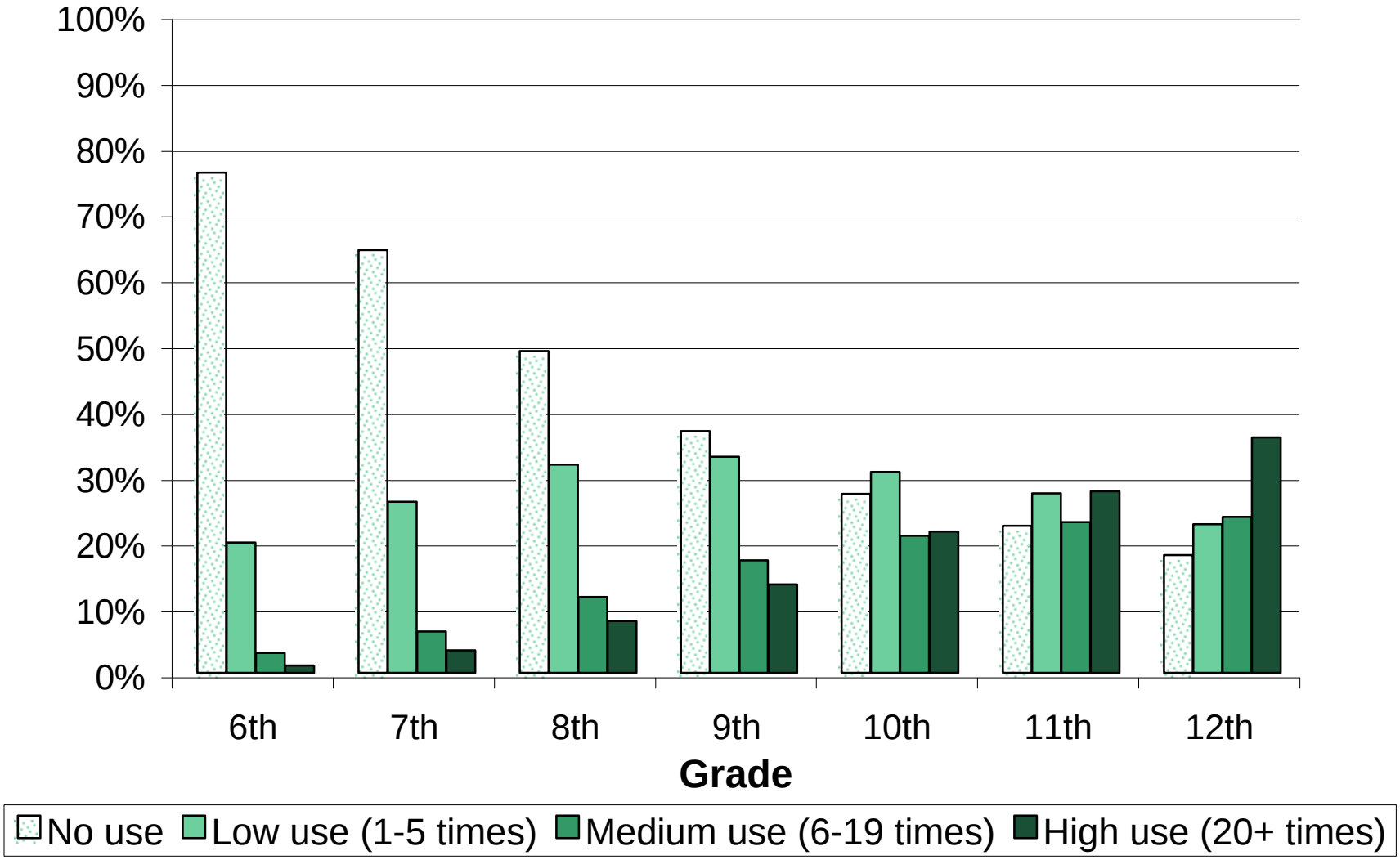
30 Day Use. Nearly 70% of the students surveyed reported abstaining from alcohol during the previous 30 days. Another 23.2% reported low use (1-5 occasions); 5.6% reported medium use (6-19 occasions) and 1.9% reported high use (20 or more occasions). Although low use increased steadily from 7.3% among 6th graders to 38.5% among 12th graders, approximately 2.5% of the students in each of the high school grades reported high use.

Even though a very small proportion of either gender reported high 30-day use of alcohol, a greater proportion of males reported high use (2.5% vs. 1.3% of female students).

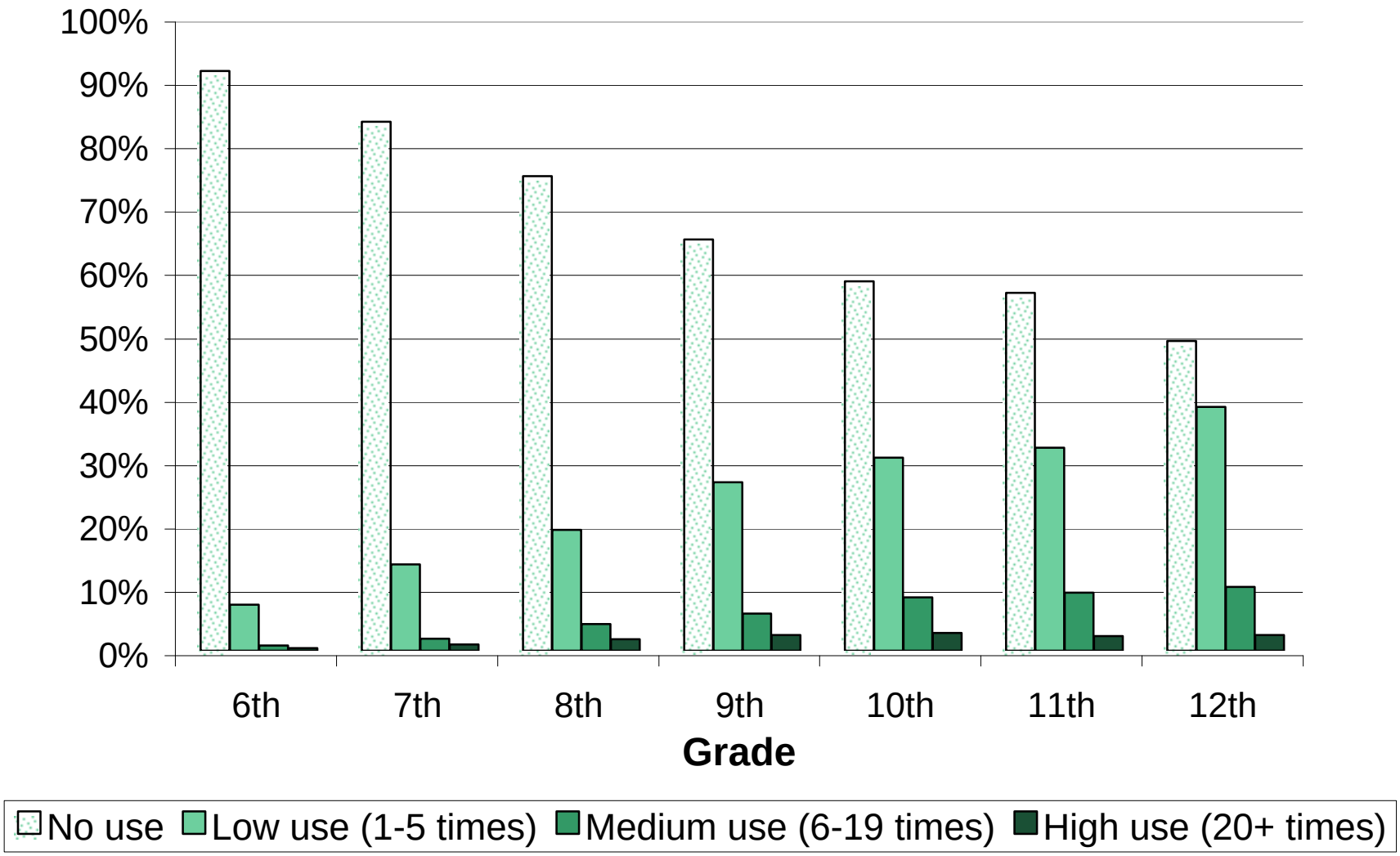
Binge Drinking. Approximately 15 percent of students surveyed in grades 6 through 12 had participated in binge drinking (five or more alcoholic drinks in a row) during the two weeks prior to the survey. A smaller proportion of students in the lower grades reported binge drinking than did students in the higher grades; reported participation in this behavior increased from 2.3% among 6th grade students to 29.5% among 12th grade.

A higher proportion of male students (17.6%) than female students (13.3%) reported binge drinking.

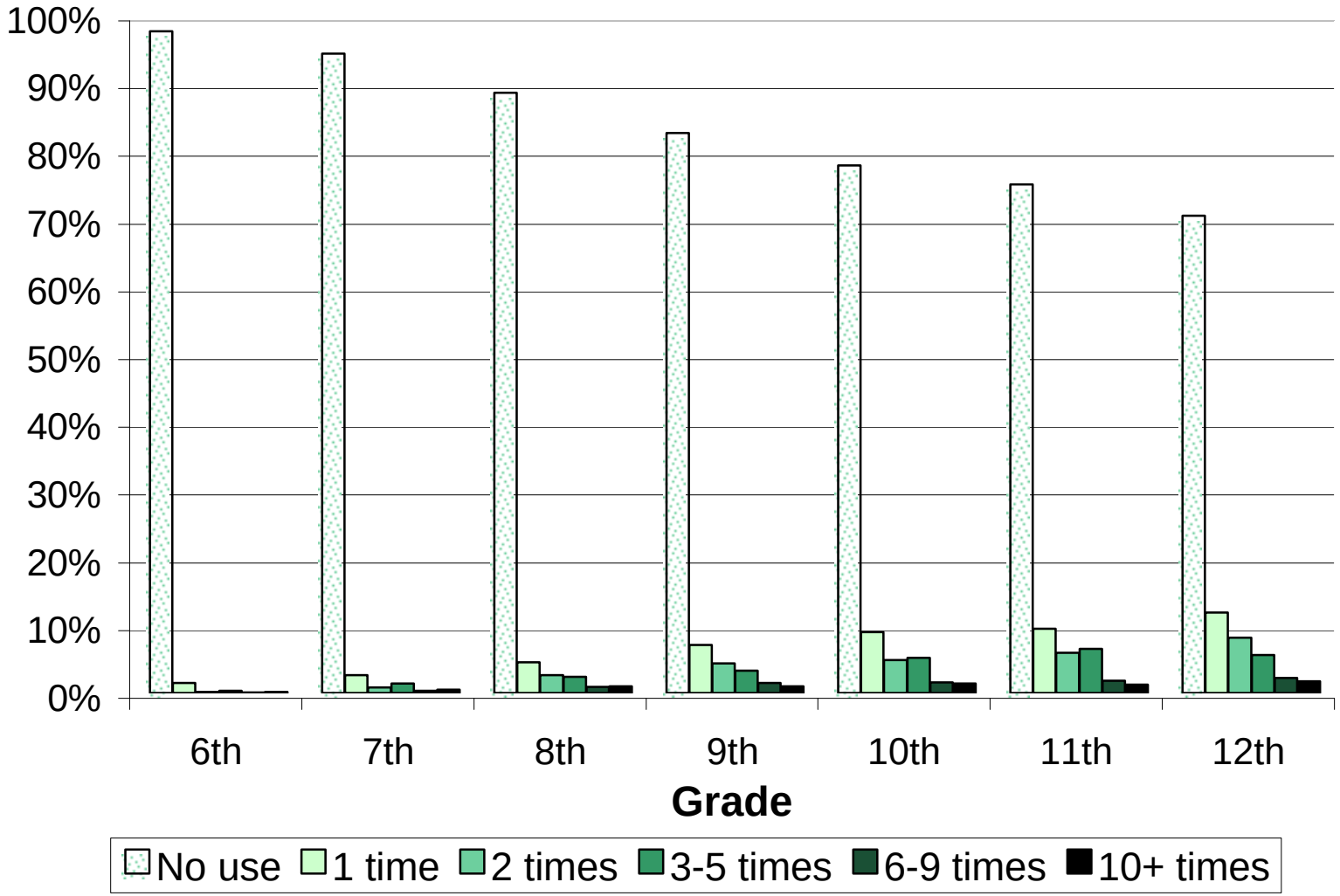
Alcohol - Lifetime Use



Alcohol - 30 Day Use



Binge Drinking - Two Week Use



Marijuana:

Lifetime Use. After alcohol and tobacco, marijuana was the third most frequently used drug by those surveyed; nearly three in ten 6th through 12th graders surveyed (28.7%) had ever used marijuana, which, along with alcohol and tobacco, is considered a gateway drug. A larger percentage of students reported high use (13.0%) and low use (9.5%) than medium use (6.1%) of the drug.

Those in the lower grades reported less use of marijuana in their lifetime than did those in the higher grades; prevalence rates increased from 3.5% among 6th grade students to 55.3% among 12th grade students.

A higher proportion of male students (31.0%) than female students (26.4%) reported marijuana use, and males more often reported high use (15.5% vs. 10.8%). Prevalence rates of high use were greater for non-white students (15.6%) than for white students (13.0%).

30 Day Use. Approximately 15% of students reported using marijuana during the 30 days before the survey. As with lifetime marijuana use, a greater proportion of students reported low use (7.4%) and high use (4.3%) than medium use (3.7%), a pattern that was consistent through the high school grades.

The greatest increase in the proportion of current marijuana users was between 8th and 10th grades; the proportion increased from 9.9% in 8th grade to 16.9% in 9th grade and by 10th grade was 23.7%. Almost one in ten (9.6%) 12th graders reported using marijuana twenty or more times in the previous 30 days.

A greater proportion of males than females reported medium use (4.1% vs. 3.3%) or high use (5.8% vs. 2.8%), and a somewhat greater proportion of non-white students than white students reported medium use (4.3% vs. 3.7%, respectively) or high use (5.8% vs. 4.1%, respectively).

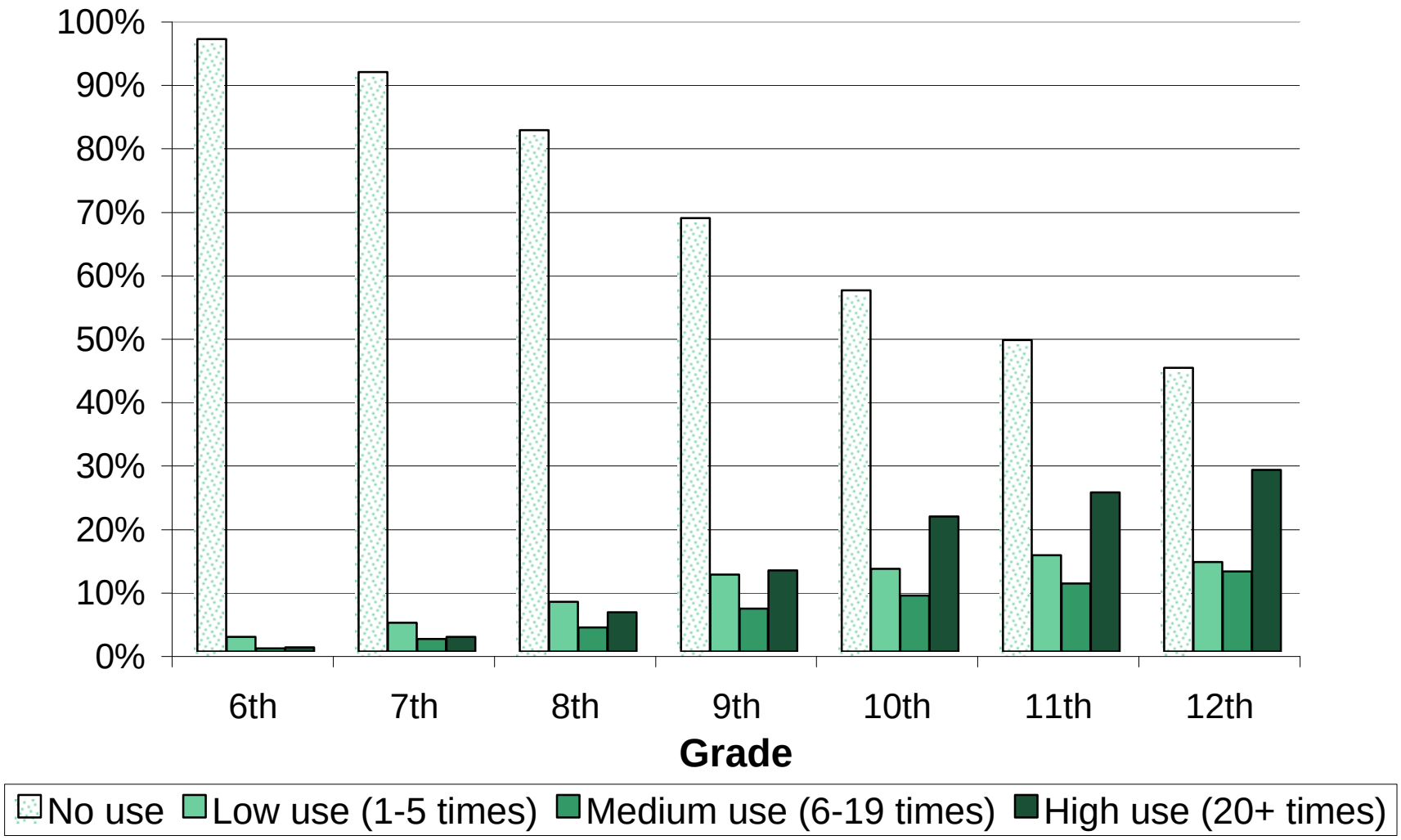
Smokeless Tobacco:

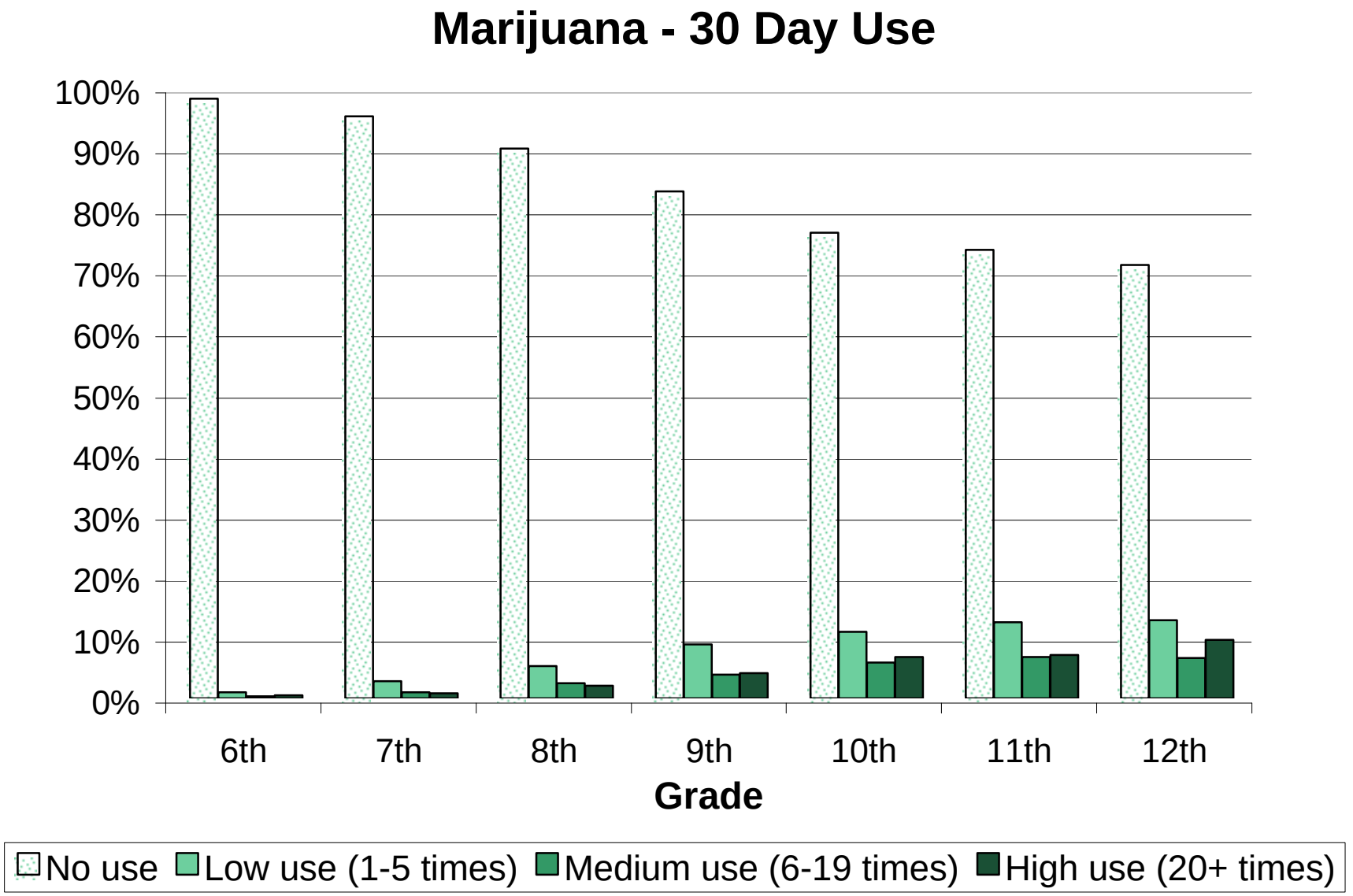
Lifetime Use. A large majority of the 6th through 12th graders surveyed (86.4%) had *never* used smokeless tobacco, and an additional 7.8% had only tried smokeless tobacco once or twice. Only 1.4% said they were using smokeless tobacco regularly.

The proportion of students that reported using smokeless tobacco increased from 4.5% of 6th graders to 24.1% of 12th graders. In addition, among those surveyed, 12th grade students (2.6%) were more likely than 6th graders (0.6%) to indicate that they were regular users of smokeless tobacco at the time of the survey.

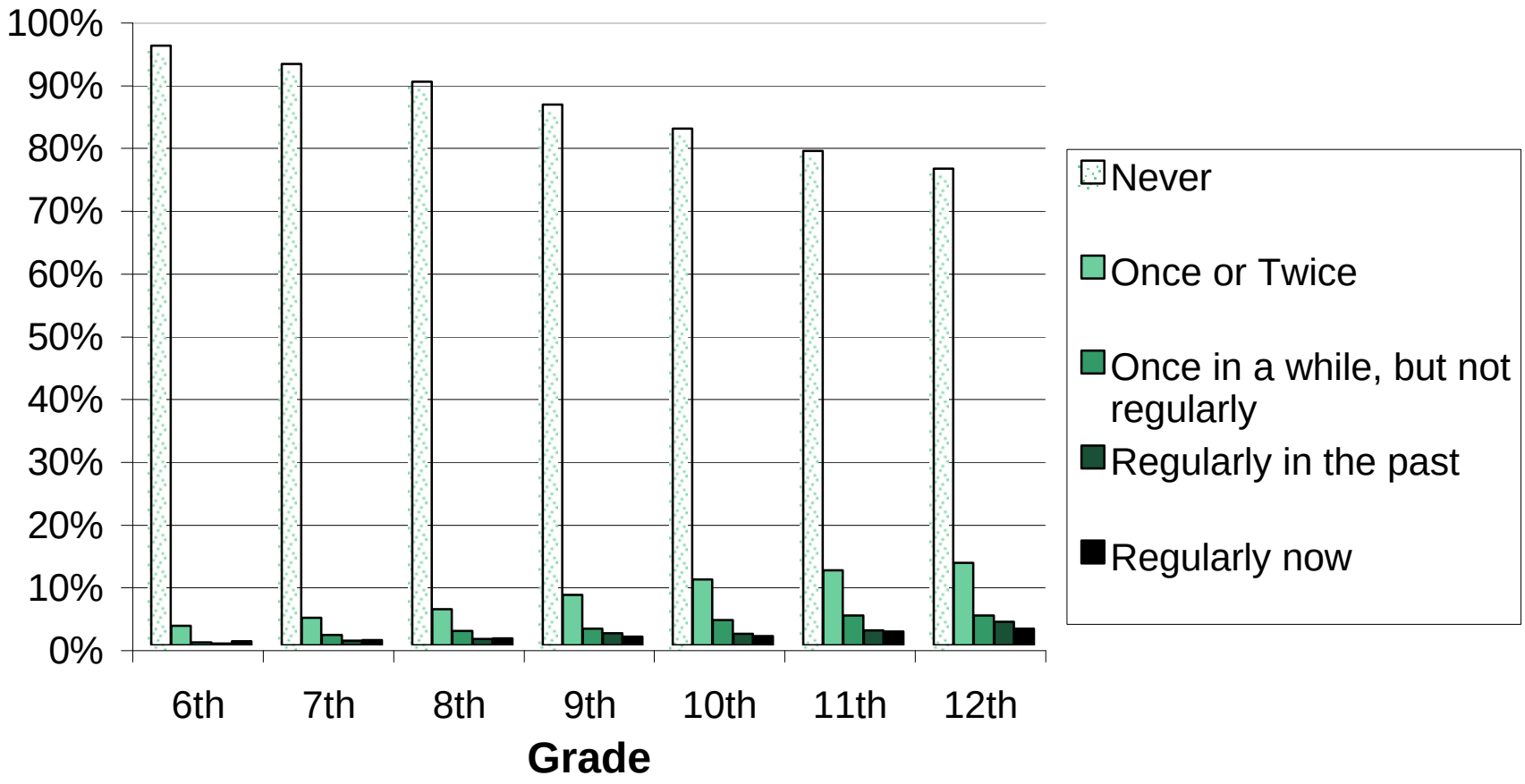
Male students (20.4%) were much more likely than female students (7.3%) to indicate that they have ever used smokeless tobacco. Reported rates of smokeless tobacco use were somewhat higher for non-white students (15.9%) than for white students (13.5%).

Marijuana - Lifetime Use




Marijuana - 30 Day Use
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6th
7th
8th
9th
10th
11th
12th
Grade
No use
Low use (1-5 times)
Medium use (6-19 times)
High use (20+ times)

Smokeless Tobacco - Lifetime Use



Smokeless Tobacco (cont.):

30 Day Use. Among the students surveyed, smokeless tobacco had been used very little during the previous 30 days; 95.5% had not used smokeless tobacco at all and an additional 2.4% had used it only once or twice during that period of time. Eleventh and twelfth graders most often reported using smokeless tobacco more than once per day, but less than 2 in 100 students in these grades reported this level of use (1.5% of each grade).

Males were three times more likely than females to report using smokeless tobacco more than once each day (1.3% vs. 0.4%, respectively). The rate of use among non-white students participating in the survey was somewhat higher than for the white students (6.4% vs. 4.3%, respectively).

Cigarettes:

Lifetime Use. More than one-half of the students surveyed (57.6%) had never smoked cigarettes, and an additional 16.9% of students indicated that they had smoked only once or twice during their lifetime. Less than one in ten students surveyed (9.2%) were smoking cigarettes regularly.

The prevalence rate of cigarette smoking increased from 16.7% among 6^{th} graders to 63.0% among 12^{th} grade students. Additionally, those who smoked regularly were more likely to be in the higher grades (19.3% of 12^{th} graders versus 1.5% of 6^{th} graders).

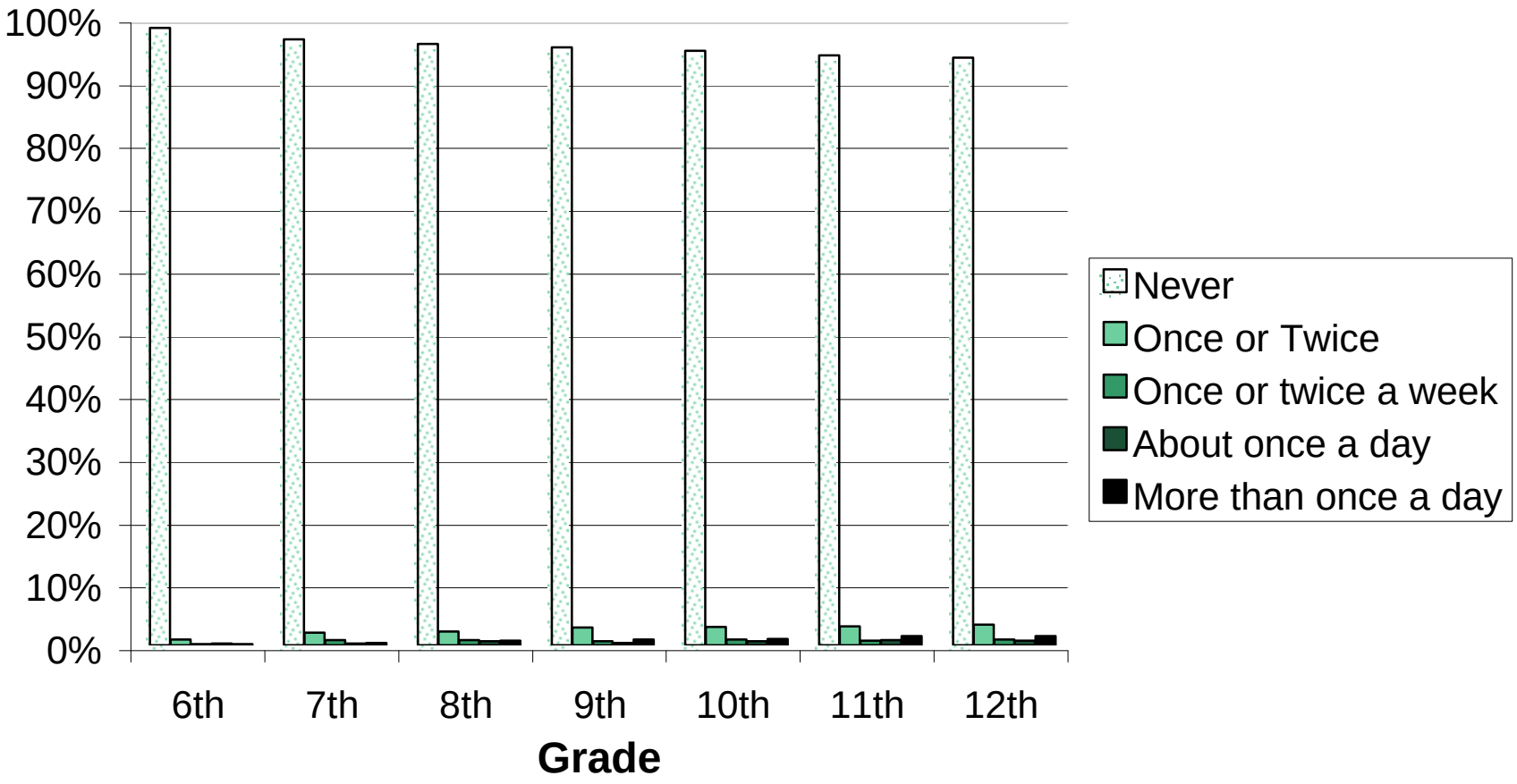
Contrary to the pattern of use observed for the other substances, a higher proportion of female students than males reported that they had ever smoked cigarettes (43.3% vs. 41.5%) and that they were smoking regularly at the time of the survey (9.8% vs. 8.5%). White students were more likely than non-white students to report that they had never smoked cigarettes (57.6% versus 53.2%).

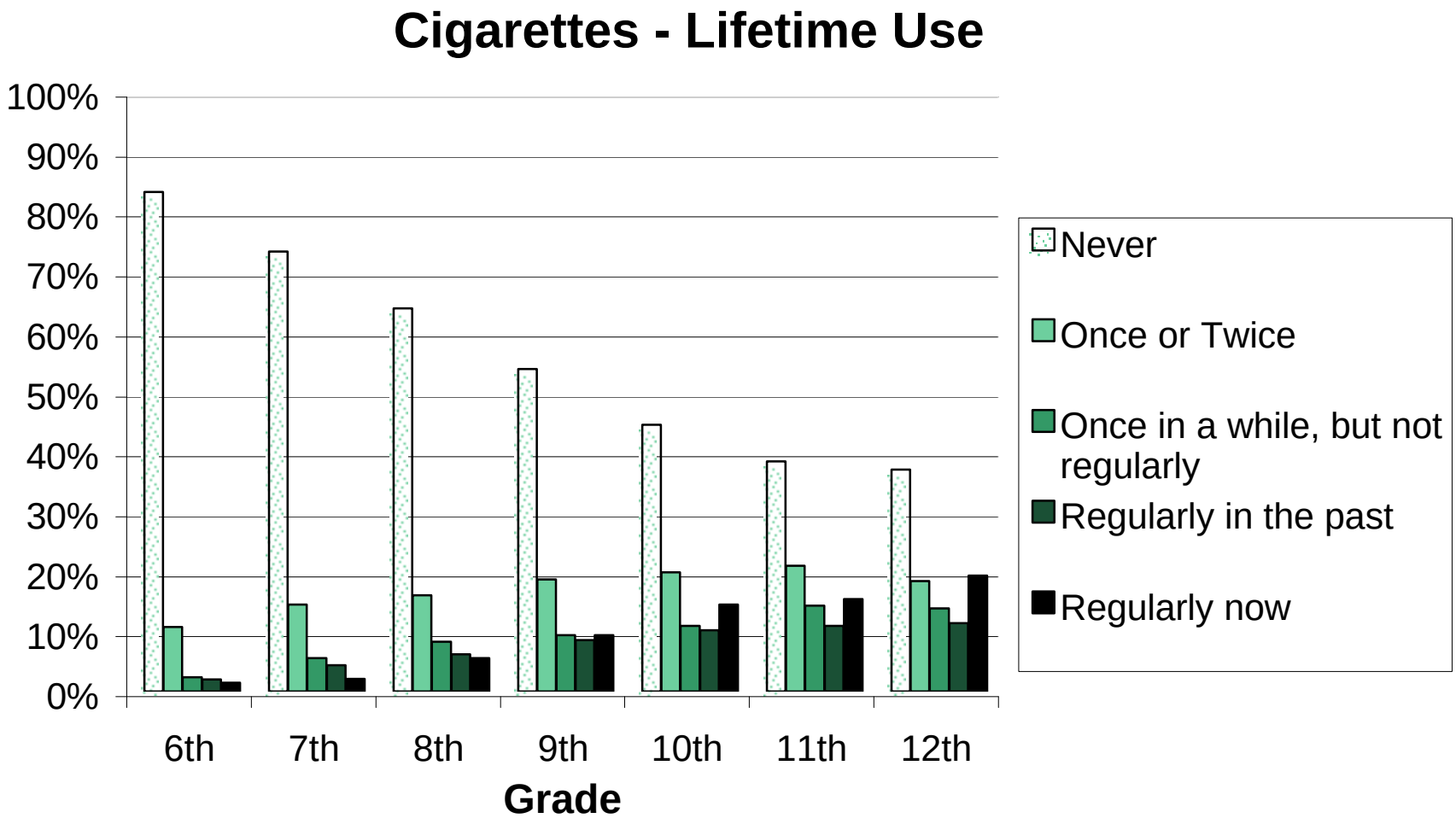
30 Day Use. Cigarettes were second only to alcohol as the substance used by the greatest proportion of students during the 30-days prior to the survey. The rate of cigarette use increased from 4.2% among 6^{th} graders to 30.9% among 12^{th} graders, with the greatest increase in use between 7^{th} and 8^{th} grades (from 8.2% to 13.5%) and between 9^{th} and 10^{th} grades (from 18.3% to 23.7%).

As with lifetime use, 30-day use of cigarettes was reported by a higher proportion of female students than male students (18.0 versus 16.5%, respectively). However, male and non-white students were more likely to report high use (1.3% and 2.2%) than were female and white students (0.9% and 1.0%).

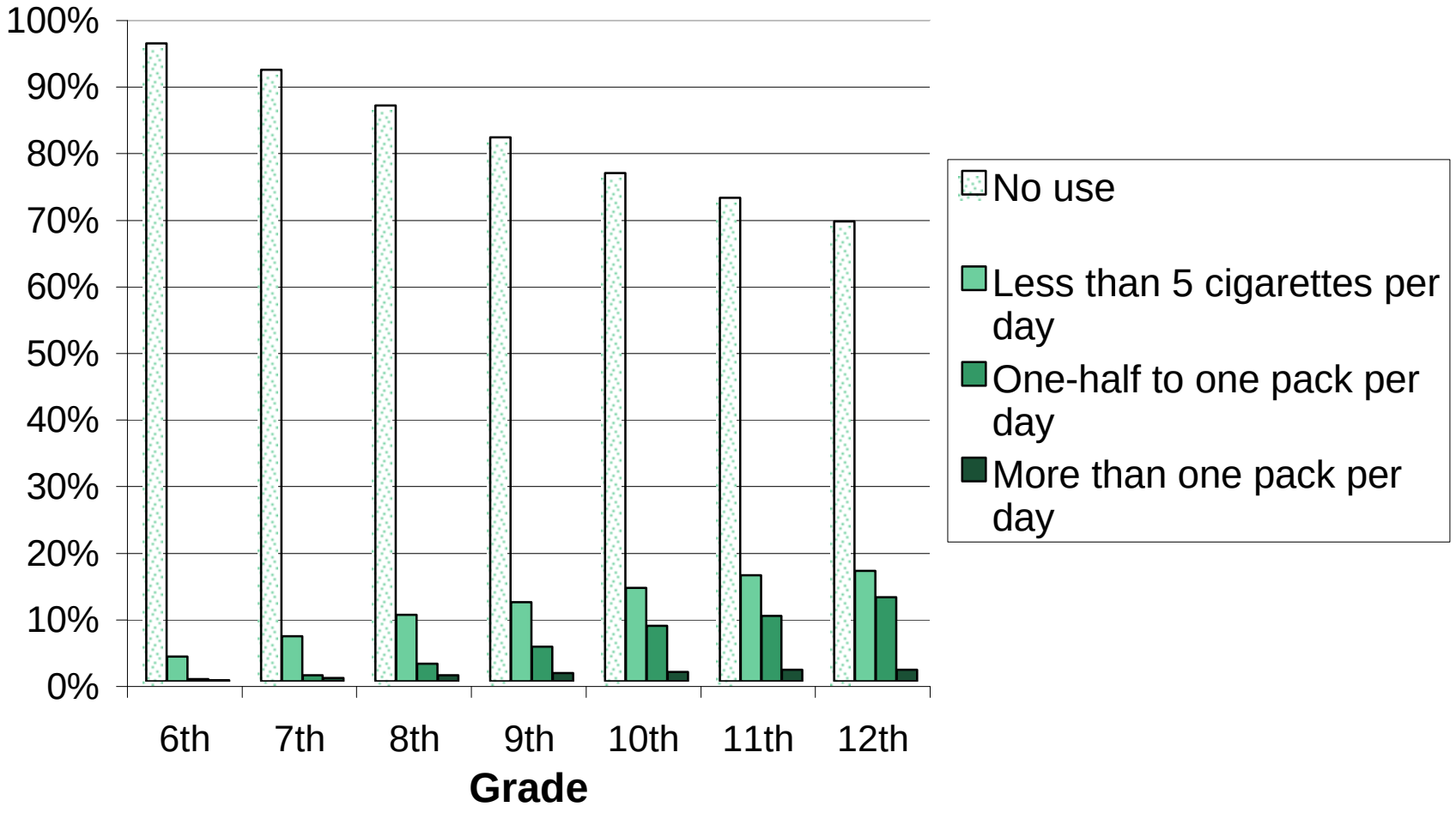
Nevertheless, the vast majority (82.7%) of students had not smoked cigarettes during the previous 30 days and only 1 in 100 (1.1%) smoked more than a pack a day.

Smokeless Tobacco - 30 Day Use




Cigarettes - Lifetime Use
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6th
7th
8th
9th
10th
11th
12th
Grade
Never
Once or Twice
Once in a while, but not regularly
Regularly in the past
Regularly now

Cigarettes - 30 Day Use



LSD and Other Psychedelics:

Lifetime Use. Less than eight percent (7.6%) of 6th through 12th graders surveyed had ever used LSD or other psychedelics. Low use of psychedelics (4.8%) was reported more often than either medium use (1.8%) or high use (1.0%).

The prevalence rate of psychedelic use increased with grade; while 1.0% of 6th grade students surveyed reported having ever used psychedelics, 17.2% of 12th graders indicated that they had used psychedelics. Male students (8.7%) and non-white students (10.1%) were more likely to report having tried psychedelics than were female students (6.3%) and white students (7.4%).

30 Day Use. Current psychedelic use was very low among the surveyed students; 97.2% reported no use during the previous 30-day period. The greatest rate of high use (20 or more occasions) was among 9th and 11th graders (0.4% of each grade).

Males were somewhat more likely to report use of psychedelics then were females (3.5% vs. 2.1%) and a higher proportion of non-white students reported use than did white students (4.3% vs. 2.6%).

Cocaine or Crack:

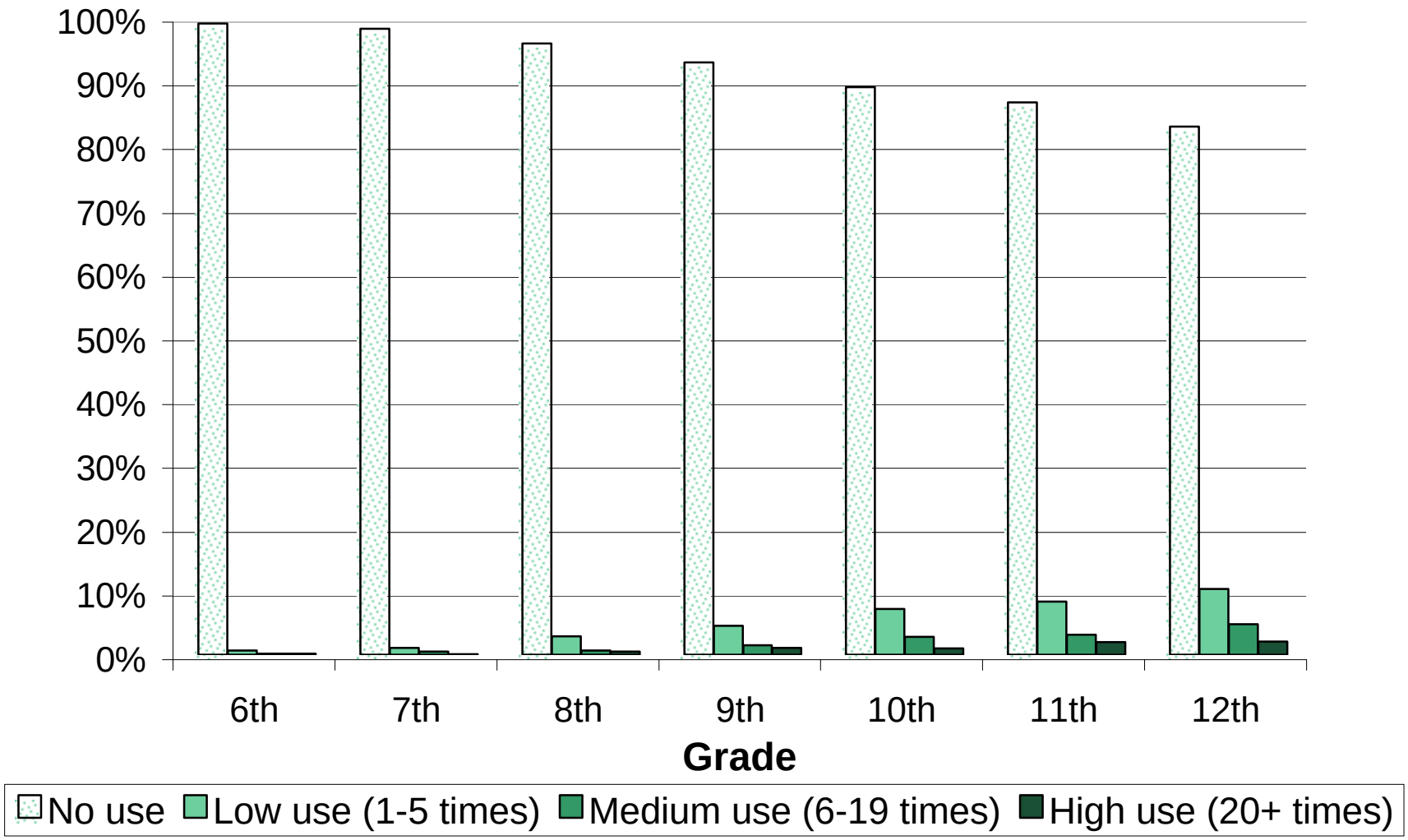
Lifetime Use. Of the drugs included in the survey, cocaine was least likely to have been tried by the students surveyed; 95.4% of those surveyed had *never* used cocaine or crack in their lifetime. Reported low use (3.2%) was much more prevalent than either medium use (0.7%) or high use (0.7%).

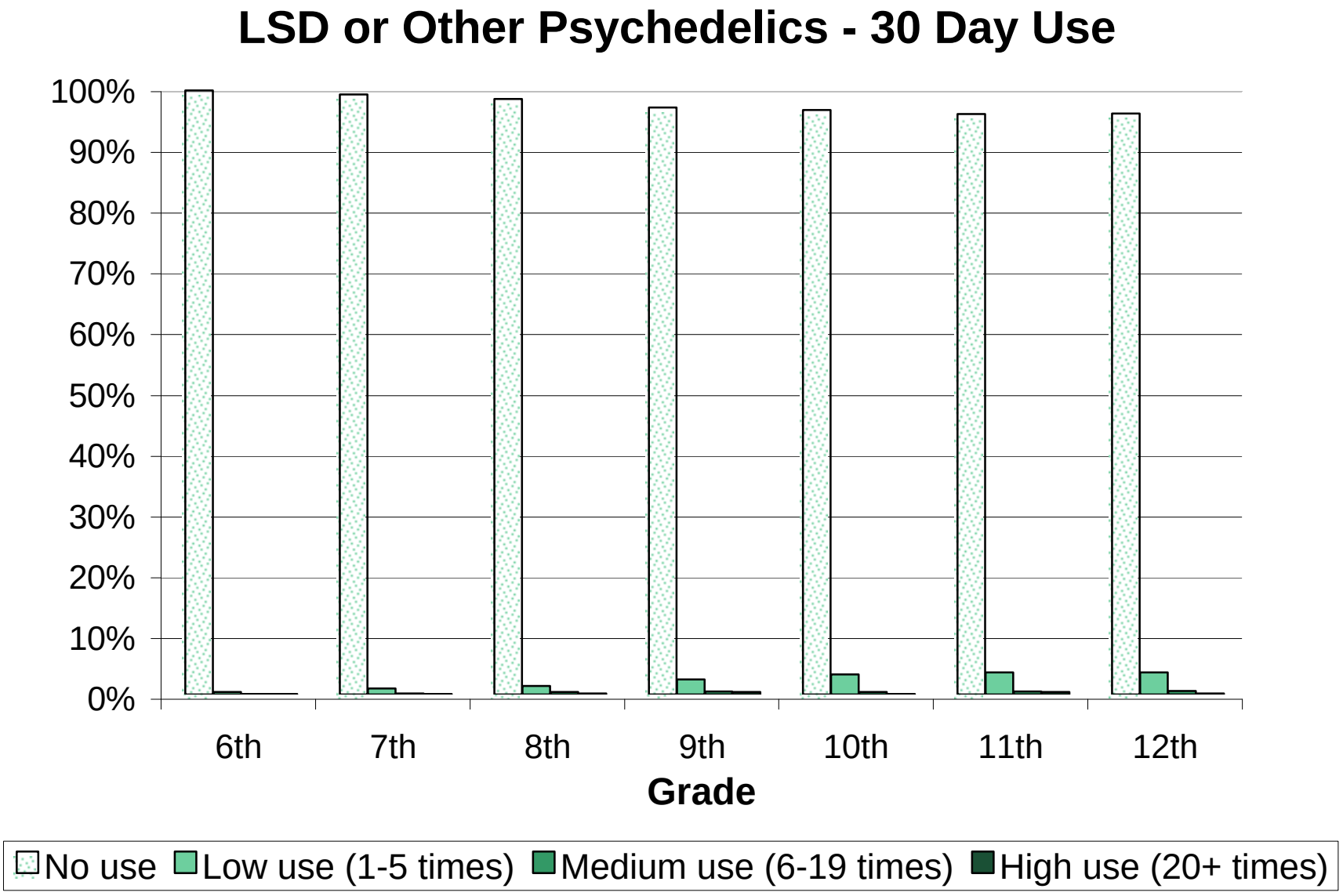
Reported prevalence of cocaine use increased from 1.6% among 6th grade students to 7.9% among 12th grade students. A greater percentage of males than females reported cocaine use (5.3% vs. 3.8%), and a larger percentage of non-white students than white students reported use (7.8% vs. 4.3%).

30 Day Use. Cocaine was also least often used during the previous 30 days; 98.2% of students never used cocaine or crack during the previous 30 days. An additional 1.2% reported low use, 0.4% reported medium use and 0.3% reported high use. Among the very small proportion of students who did report cocaine use, the grades with the highest use were 12th (2.7%), and 11th (2.5%).

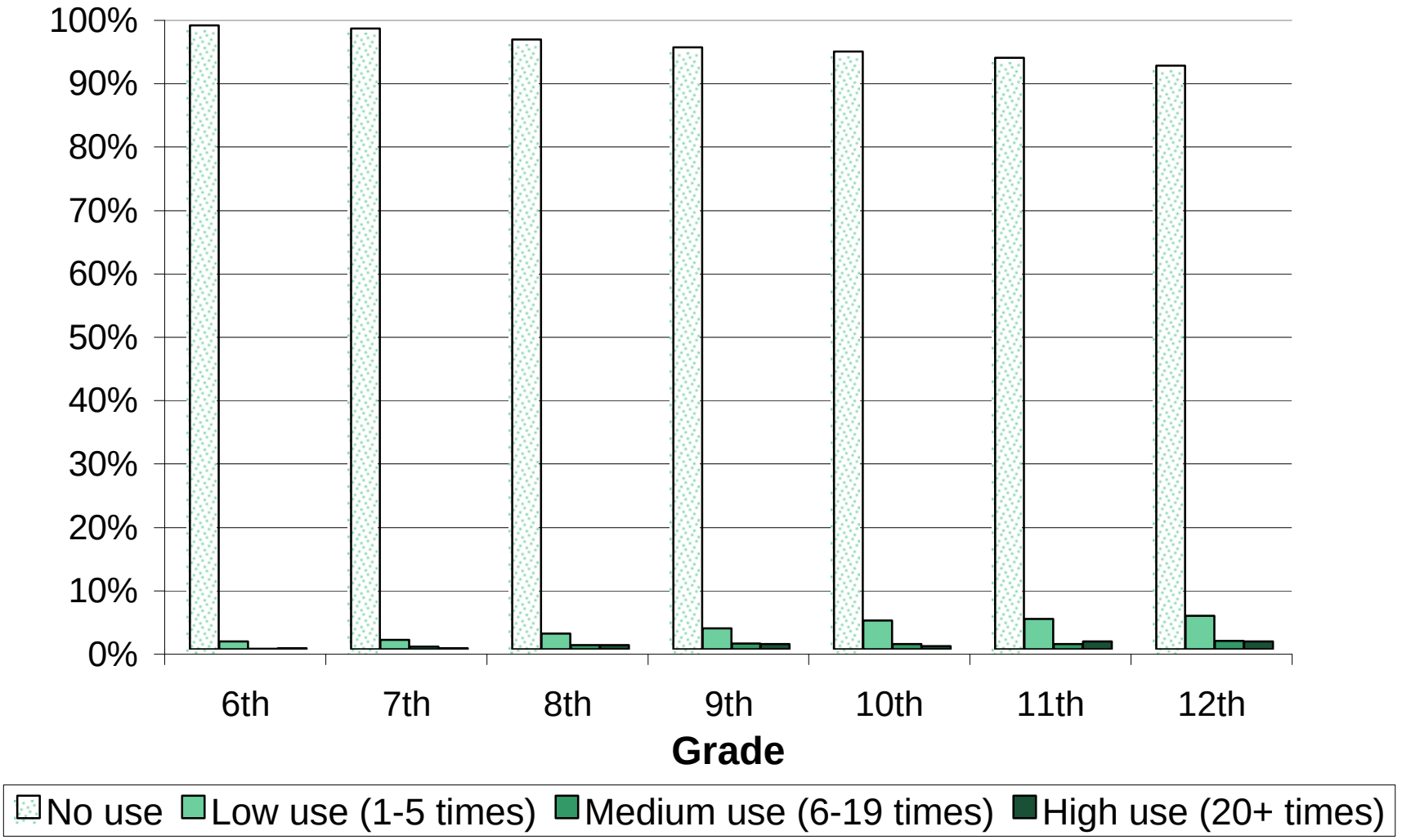
Again, a higher proportion of males than females (2.3% vs. 1.3%), and non-white than white students (3.5% vs. 1.6%) reported cocaine use.

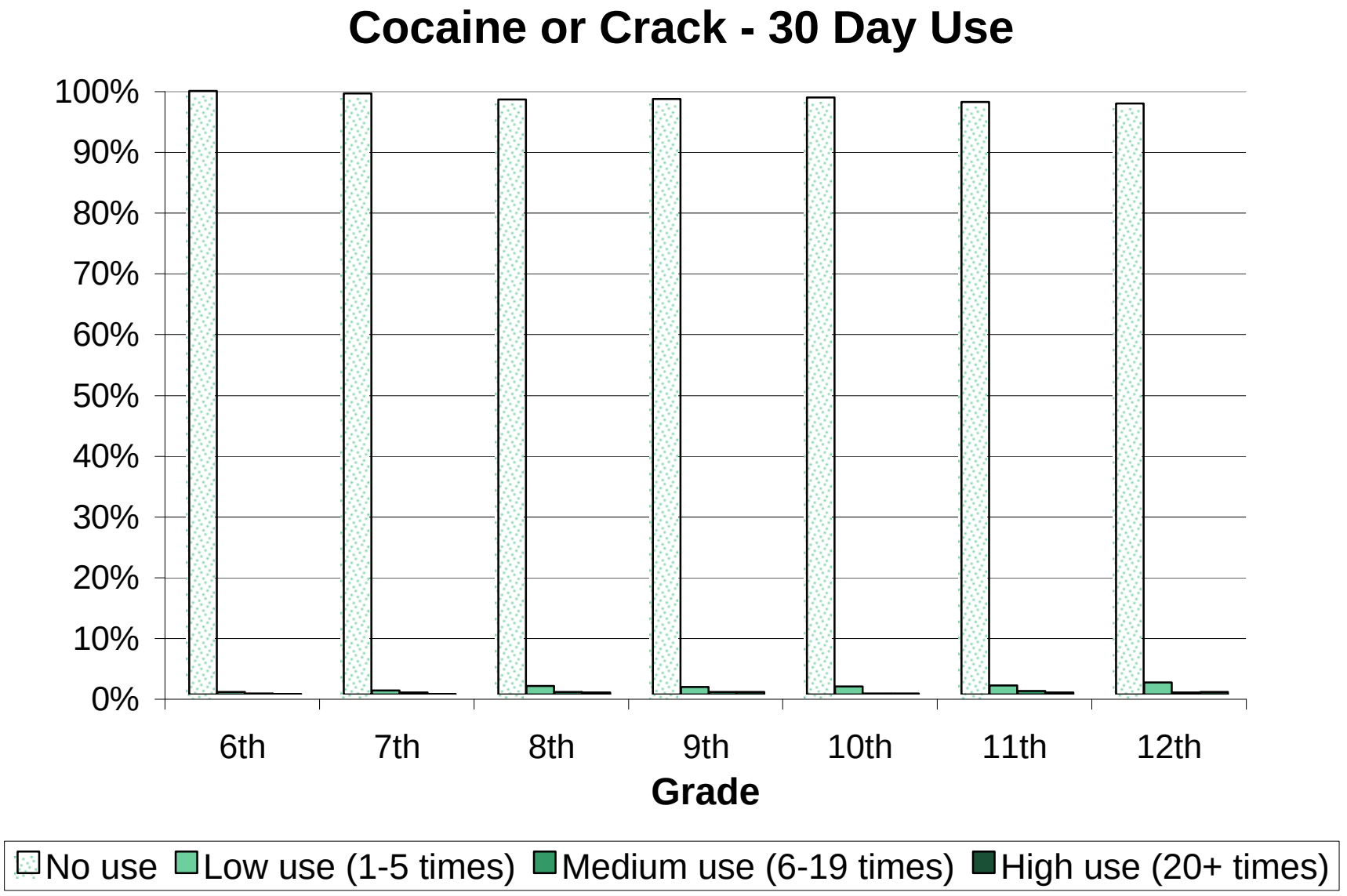
LSD or Other Psychedelics - Lifetime Use




LSD or Other Psychedelics - 30 Day Use
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6th
7th
8th
9th
10th
11th
12th
Grade
No use
Low use (1-5 times)
Medium use (6-19 times)
High use (20+ times)

Cocaine or Crack - Lifetime Use




Cocaine or Crack - 30 Day Use
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6th
7th
8th
9th
10th
11th
12th
Grade
No use
Low use (1-5 times)
Medium use (6-19 times)
High use (20+ times)

Inhalants:

Lifetime Use. Approximately 13 percent (13.4%) of students surveyed had sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays in order to get high in their lifetime. Reported low use (10.2%) was much more prevalent that either medium use (1.9%) or high use (1.3%).

Unlike the pattern of use observed for most of the substances in the survey, reported inhalant use did not increase steadily with grade. In fact, reported lifetime use of inhalants peaked in the 8th grade (14.8%), with the next highest prevalence rates in the 7th grade (14.2%) and 9th grade (14.1%).

White students (86.9%) were more likely than non-white students (83.2%) to report that they had never used inhalants.

30 Day Use. Current inhalant use was more prevalent among middle school students than among students in high school. Current use peaked in the 7th grade at 7.1%. Overall, fewer than 1 in 200 students used inhalants 20 or more times during the previous 30 days.

Stimulants:

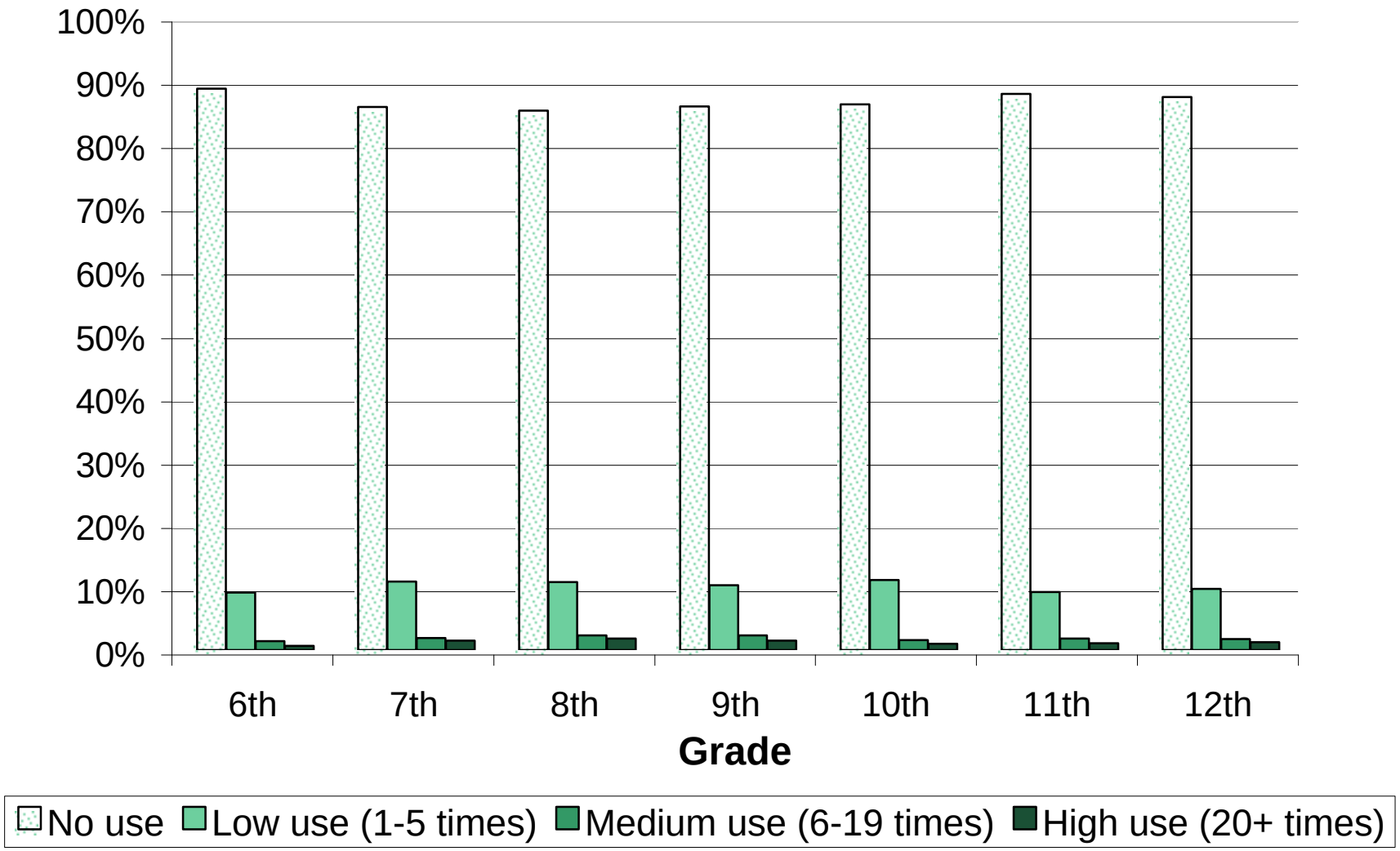
Lifetime Use. Less than eight percent (7.6%) of Maine students surveyed in grades 6 through 12 had used stimulants (such as amphetamines, meth, crystal, crank, or speed) in their lifetime. Reported low use (5.0%) was more prevalent than either medium use (1.4%) or high use (1.3%).

Students in middle school reported less use of stimulants than did those in the higher grades; reported stimulant use increased from 1.2% among 6th grade students to 14.2% among 12th grade students.

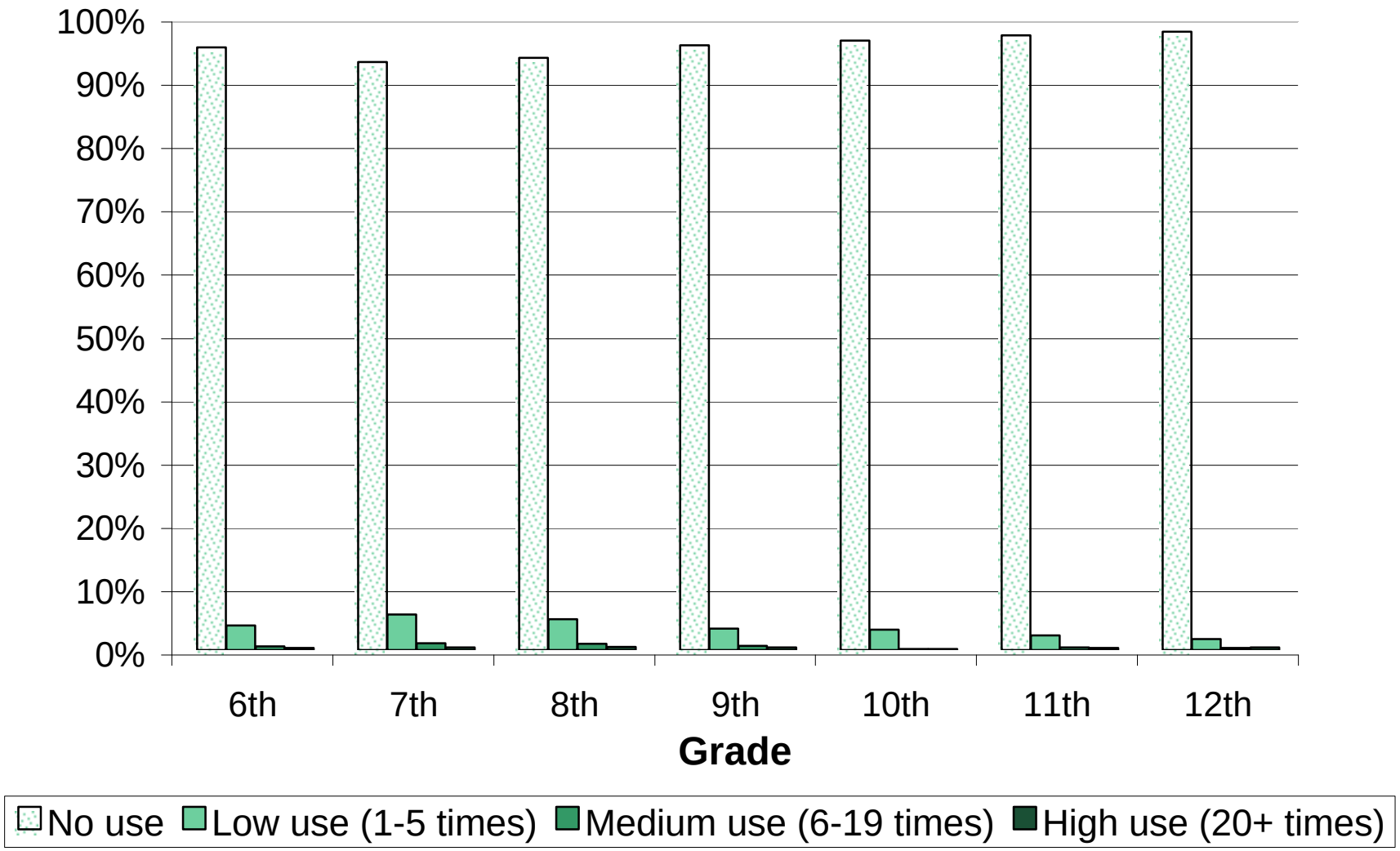
Non-white students (11.4%) were more likely than white students (7.3%) to indicate that they had ever used stimulants. Males (1.7%) were approximately twice as likely as females (0.8%) to indicate high use of stimulants in their lifetime.

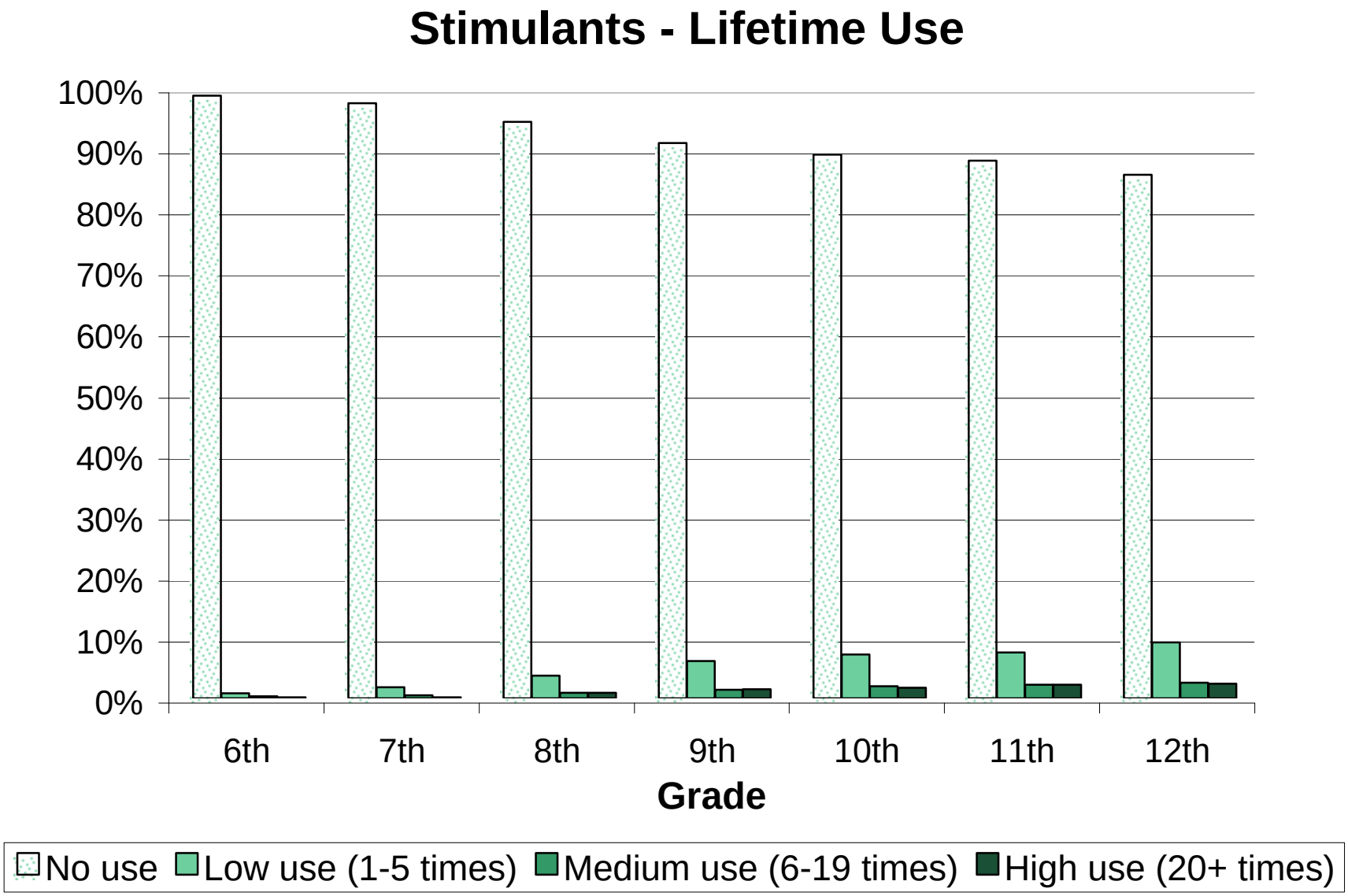
30 Day Use. Only 3.0% of the students surveyed reported using stimulants during the 30 days prior to the survey. The highest proportion of students who did use stimulants was in the 12th grade (5.0%) with the proportion decreasing more or less steadily to 0.8% in the 6th grade. The greatest increase in the proportion of students using stimulants was between the 7th (1.0%) and 8th (2.9%) grades. A greater proportion of males (0.4%) and non-white students (0.9%) reported high use than did females (0.2%) and white students (0.2%).

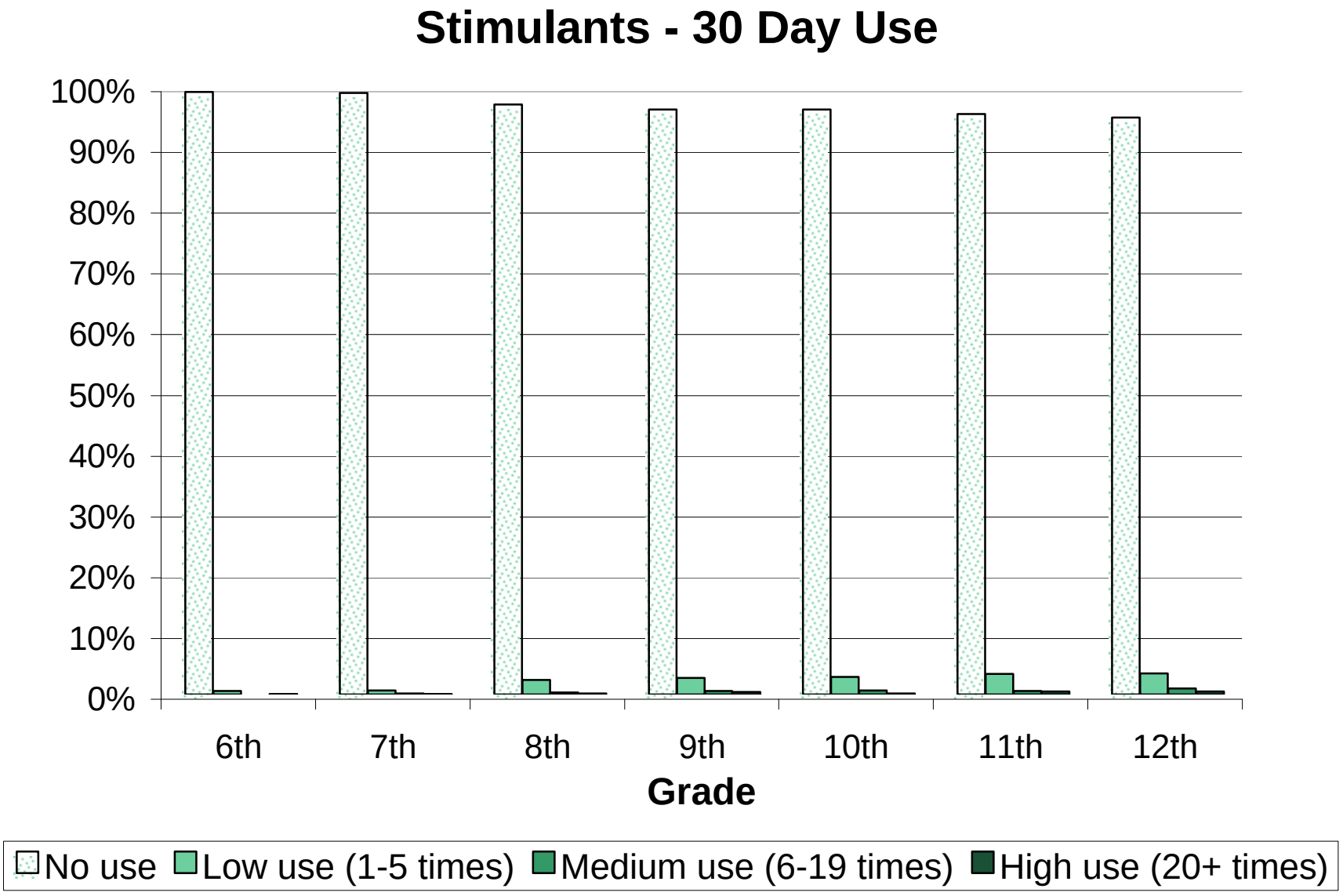
Inhalants - Lifetime Use



Inhalants - 30 Day Use




Stimulants - Lifetime Use
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6th
7th
8th
9th
10th
11th
12th
Grade
No use
Low use (1-5 times)
Medium use (6-19 times)
High use (20+ times)


Stimulants - 30 Day Use
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6th
7th
8th
9th
10th
11th
12th
Grade
No use
Low use (1-5 times)
Medium use (6-19 times)
High use (20+ times)

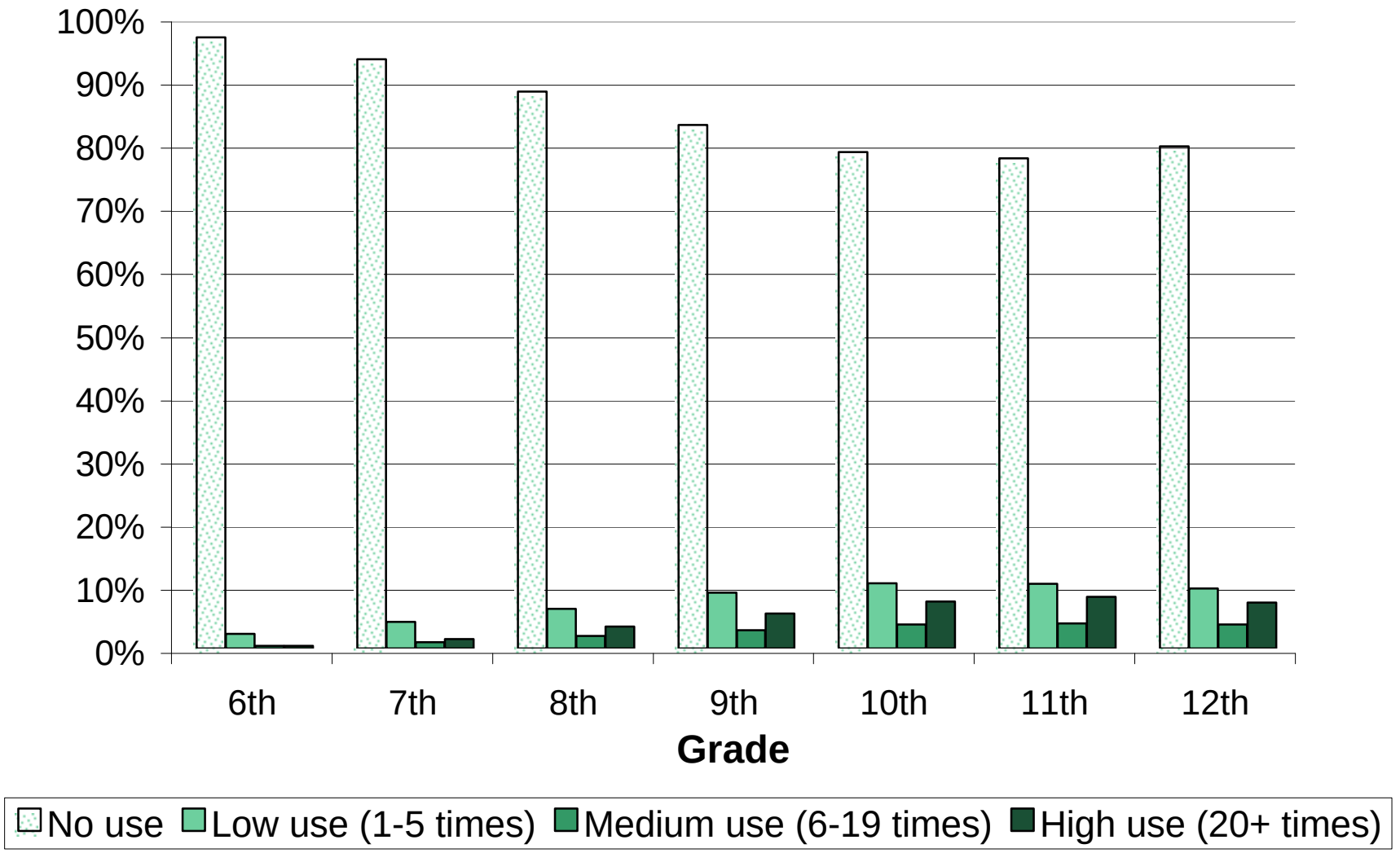
Other Illegal Drugs:

Lifetime Use. Approximately 14 percent of Maine students surveyed had used other illegal drugs in their lifetime. Students were more likely to have reported low use (7.2%) and high use (4.7%) than medium use (2.5%) of other illegal drugs.

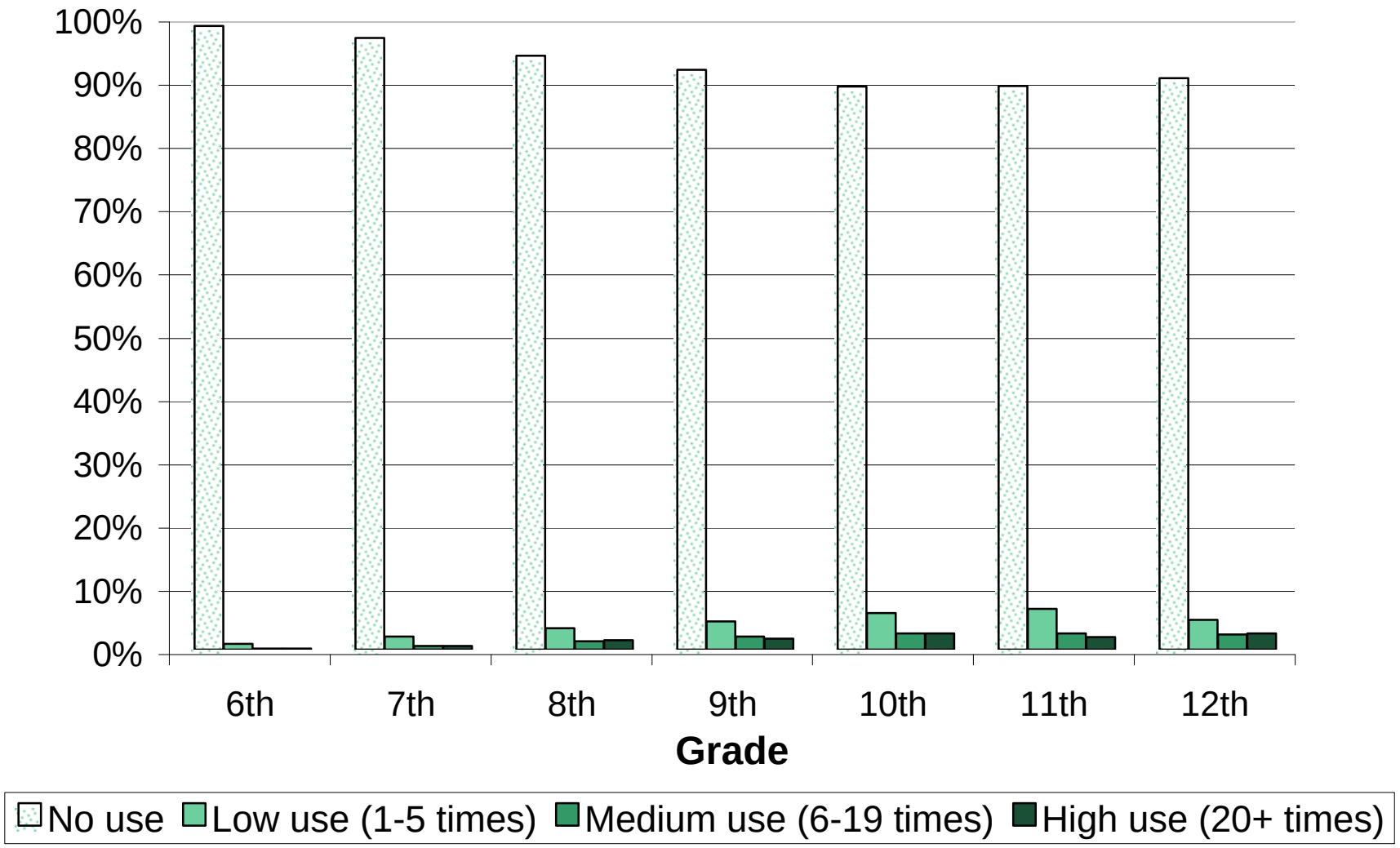
While 3.2% of 6th grade students surveyed reported having used other illegal drugs in their lifetime, 22.4% of 11th grade students and 20.5% of 12th grade students indicated that they had used other illegal drugs. Reported prevalence rates of other illegal drug use were higher for male students (15.9%) than for female students (12.8%). White students (86.0%) were somewhat more likely than non-white students (81.0%) to report that they had never used other illegal drugs.

30 Day Use. There was little current use of other illegal drugs reported; 92.9% reported no use and 3.9% reported low use. The same proportion of students (1.6%) reported medium and high use. The grades with the highest proportion of students reporting any use of other drugs were 10th (11.0%) and 11th (10.9%). The greatest proportion of students reporting high use of these drugs were 12th graders (2.6%), males (2.2%, versus 1.0% of females) and non-white students (2.8% versus 1.5% of white students).

Other Illegal Drugs - Lifetime Use



Other Illegal Drugs - 30 Day Use



PREVALENCE OF VIOLENT AND PROHIBITED BEHAVIORS

This section of the report presents data about violent and prohibited behaviors among Maine's 6th to 12th grade student population. Violent behaviors include attacking others with the intent of seriously harming them and carrying a handgun. Prohibited behaviors include being drunk or high at school, suspended from school, stealing or attempting to steal a motor vehicle, selling illegal drugs, and being arrested.

Suspended from School

Approximately 11 percent (10.8%) of 6th through 12th grade students reported having been suspended from school in the past year. Reported prevalence of this behavior peaked in the 9th grade (14.4%). Male students (15.7%) reported higher rates of being suspended than did female students (6.2%).

Carrying a Handgun

Just over four percent (4.1%) of 6th through 12th graders reported having carried a handgun in the past 12 months. The reported prevalence of carrying a handgun varied little across grades. However, it did vary by gender. Male students (7.2%) are much more likely than female students (1.1%) to have reported carrying a handgun in the last year.

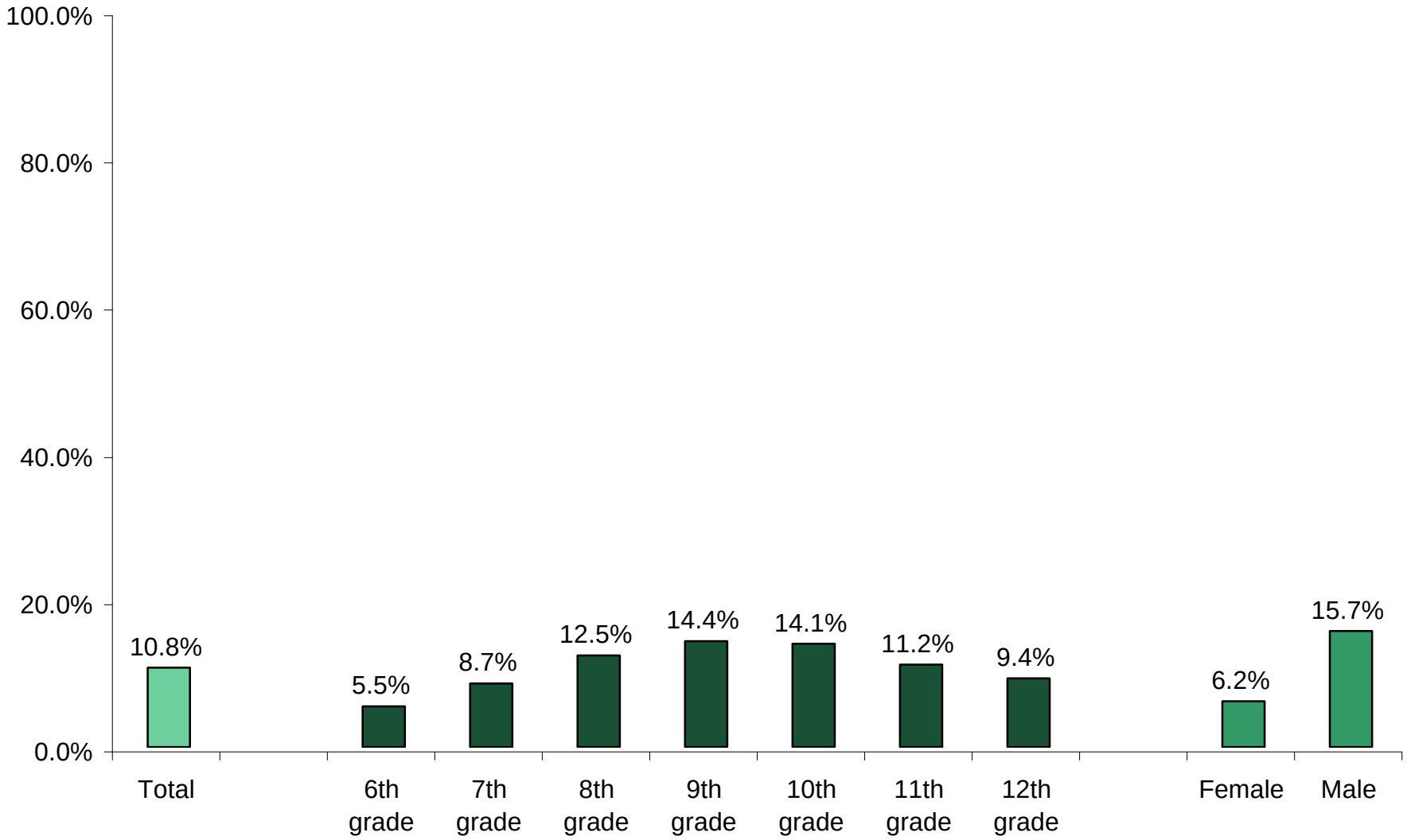
Sold Illegal Drugs

Overall, 7.3% of Maine students in the 6th through 12th grades reported having sold illegal drugs in the year prior to the survey. The reported prevalence of this behavior tended to increase as grade increased, although the rates were approximately equivalent among 10th through 12th graders. Male students (10.5%) were more than twice as likely as female students (4.2%) to indicate that they have sold illegal drugs in the past year.

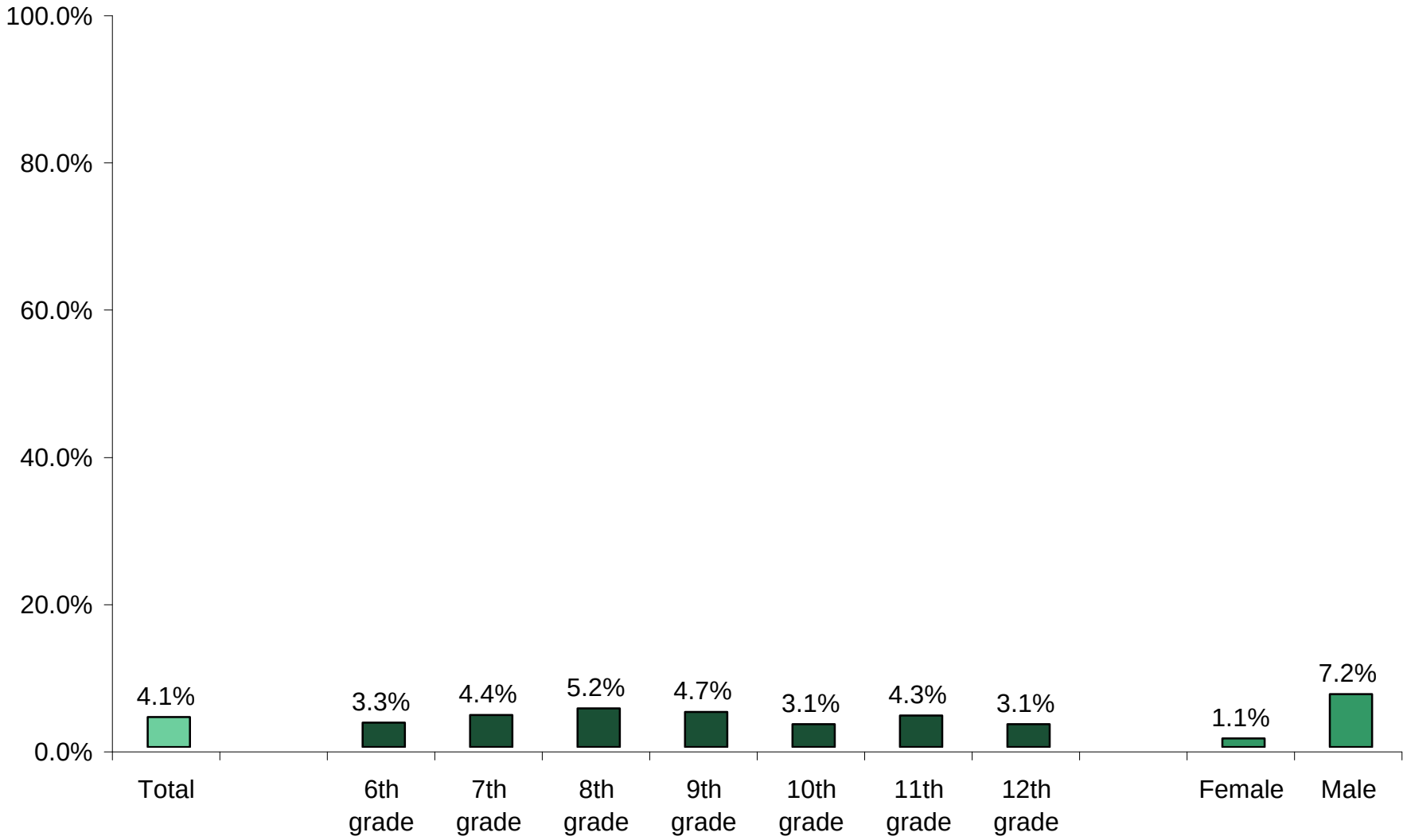
Stole or Tried to Steal a Motor Vehicle

Less than three percent of Maine students surveyed (2.9%) indicated that they have stolen or tried to steal a motor vehicle in the past 12 months. The highest reported prevalence rates for this behavior occur in the 9th (4.4%) and 10th (4.5%) grades. While 4.0% of male students reported that they stole or tried to steal a motor vehicle in the past year, 1.9% of female students reported having participated in this behavior.

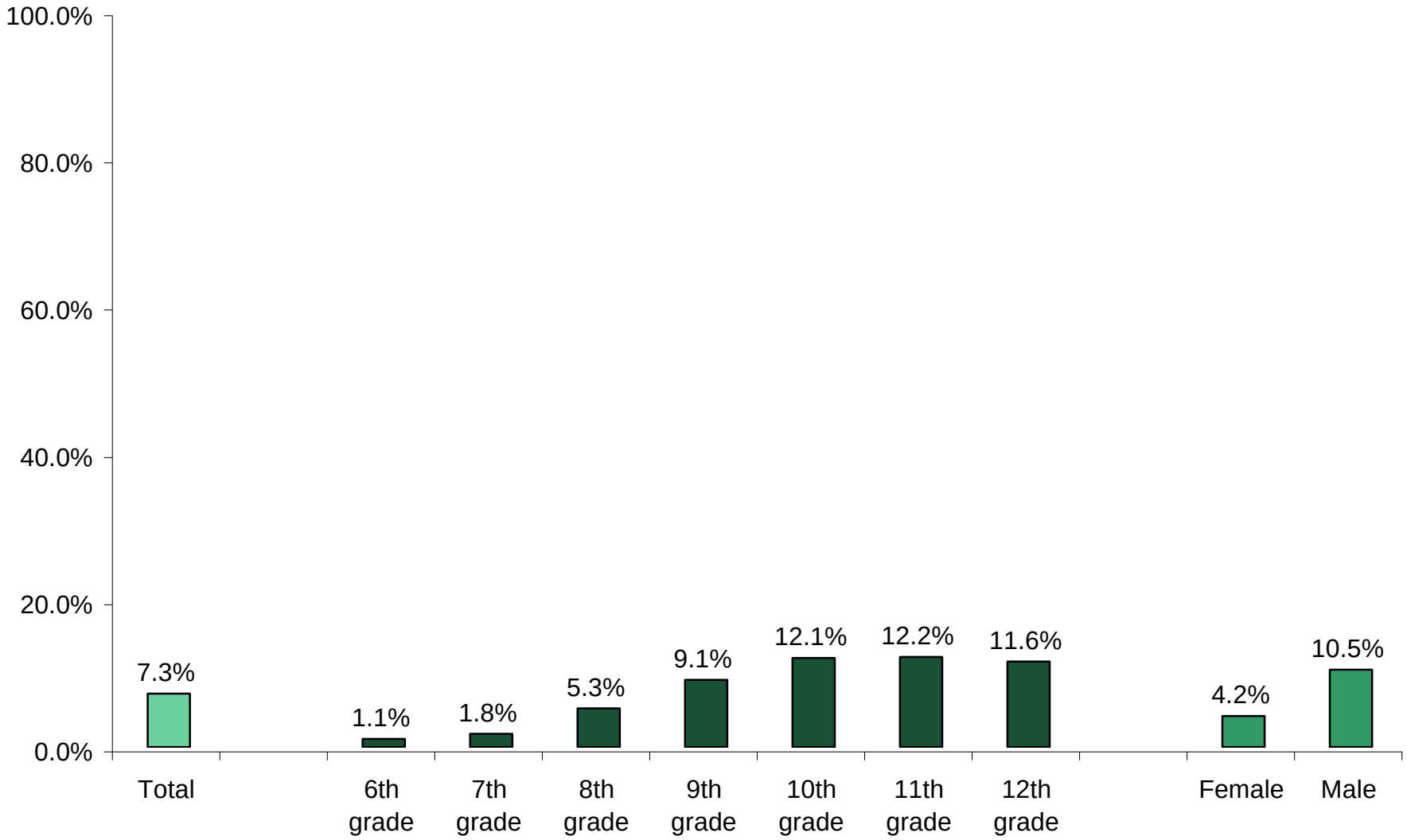
Been Suspended from School - Past Year



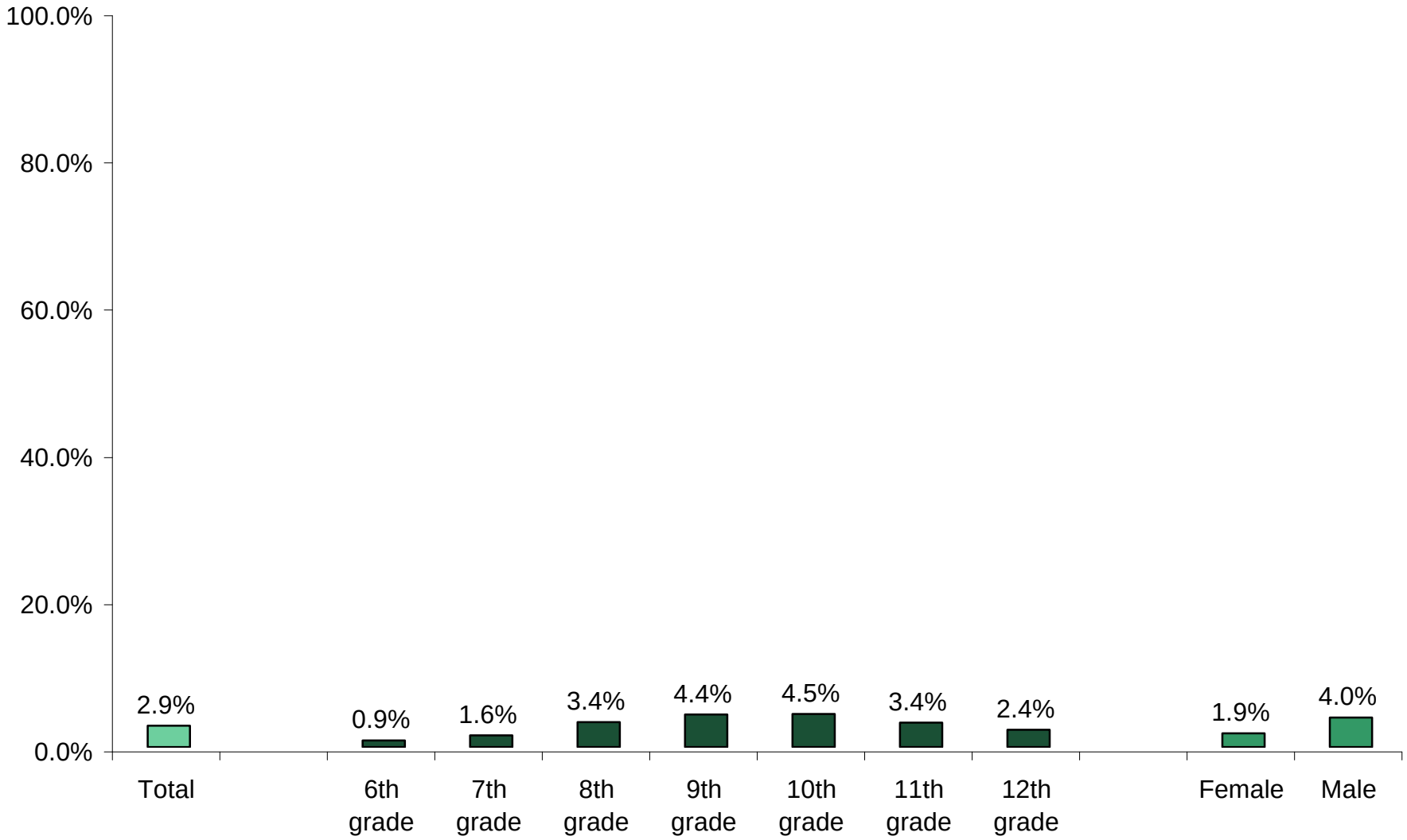
Carried a Handgun - Past Year



Sold Illegal Drugs - Past Year



Stolen or Tried to Steal a Vehicle - Past Year



Been Arrested

Five percent (5.0%) of those surveyed indicated that they have been arrested in the past 12 months. Reported prevalence of this behavior peaked in the 9th grade (7.0%). Male students (7.3%) reported higher rates of being arrested than did female students (2.9%).

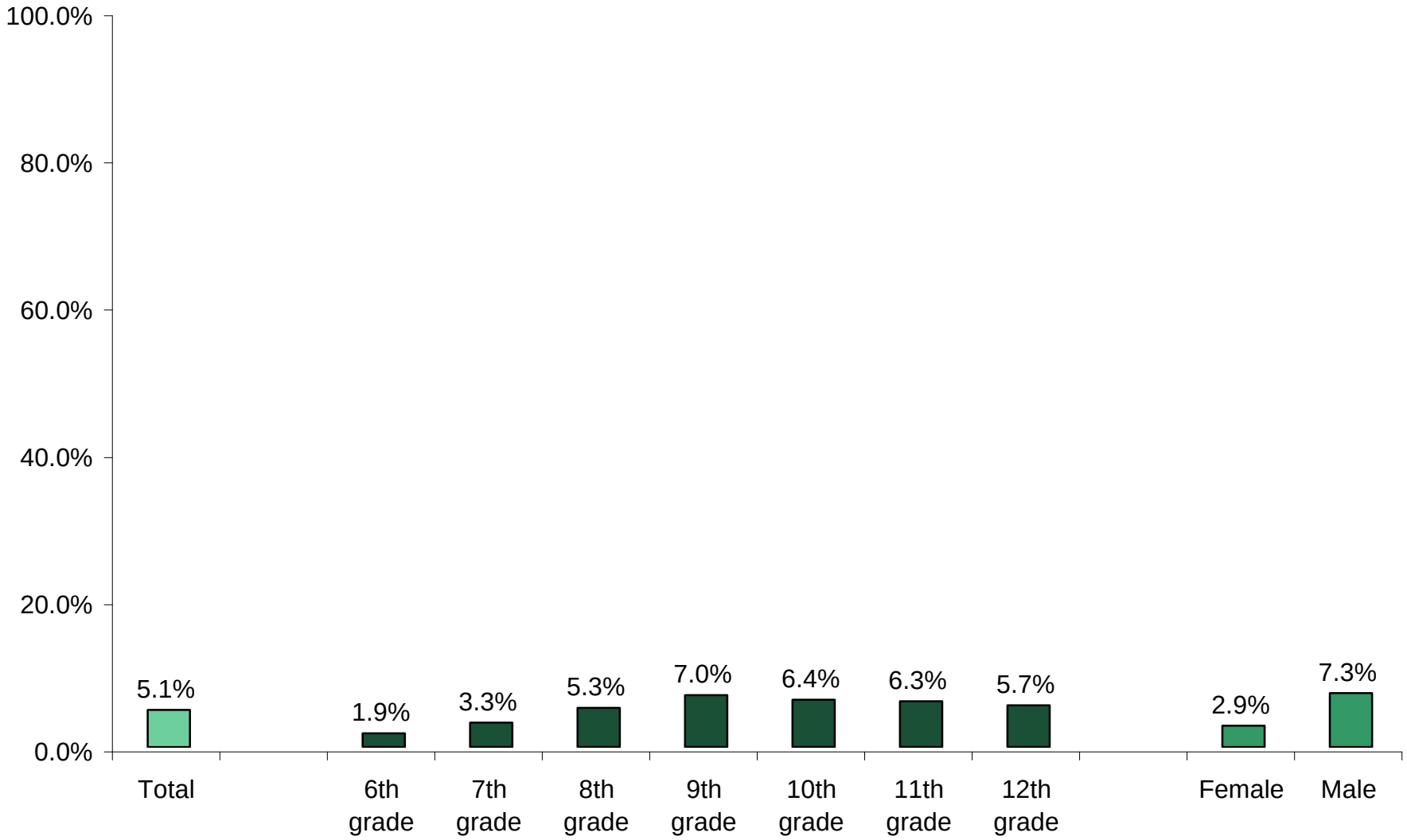
Attacking Others with the Idea of Seriously Hurting Them

Overall, 12.1% of Maine students surveyed reported that they have attacked someone with the idea of seriously hurting them in the year prior to the survey. Male students (16.7%) were approximately two times more likely than female students (7.8%) to indicate that they have attacked someone with the idea of seriously hurting them in the past year. Reported prevalence of this behavior peaked in the 9th grade (15.4%).

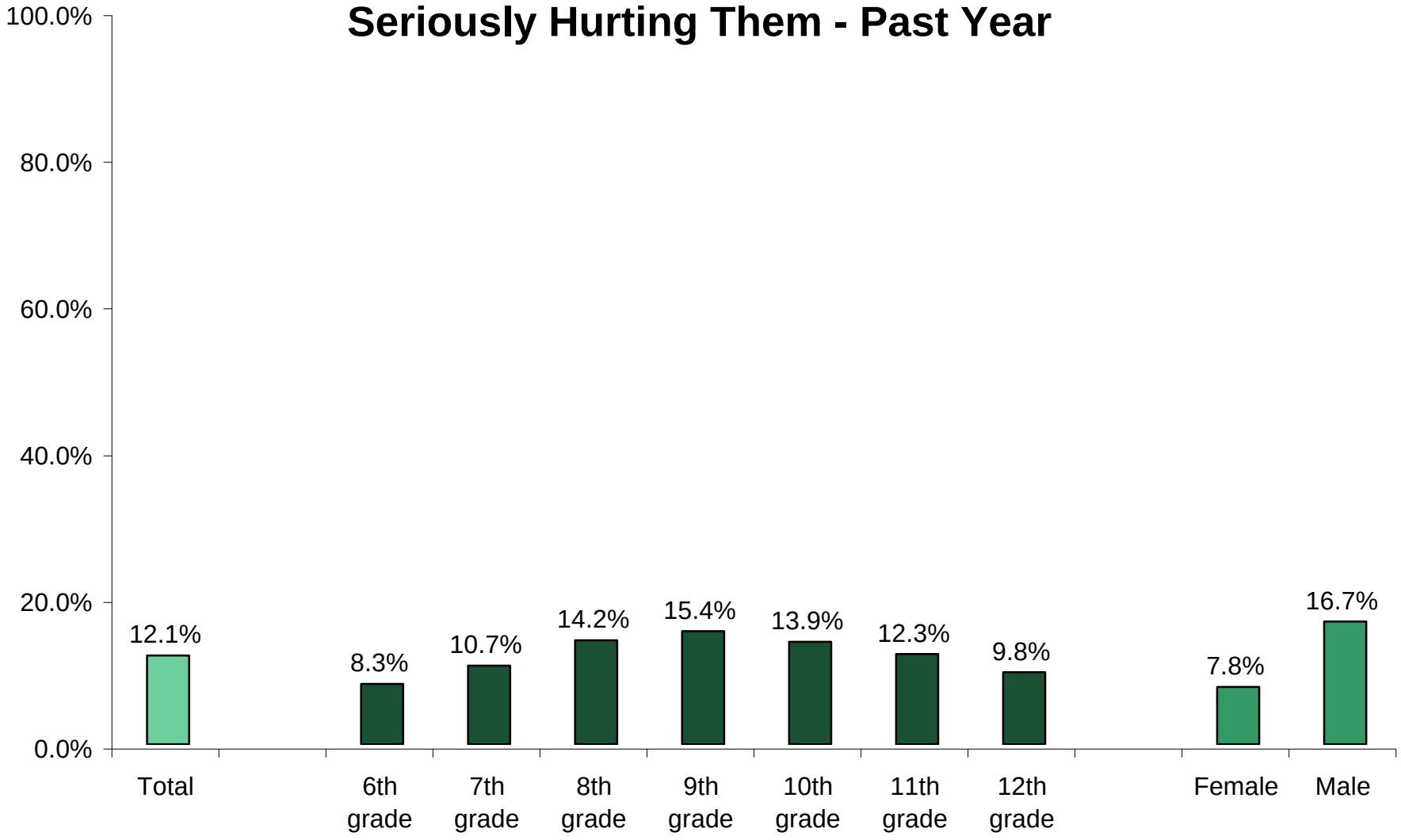
Drunk or High at School

Overall, 13.6% of Maine students indicated that they have been drunk or high at school in the year prior to the survey. The reported prevalence of this behavior tended to increase as grade increased, although the rates were approximately equivalent among 10th through 12th graders. Female students were somewhat less likely than male students to have indicated being drunk or high at school in the past 12 months (11.5% versus 16.0%).

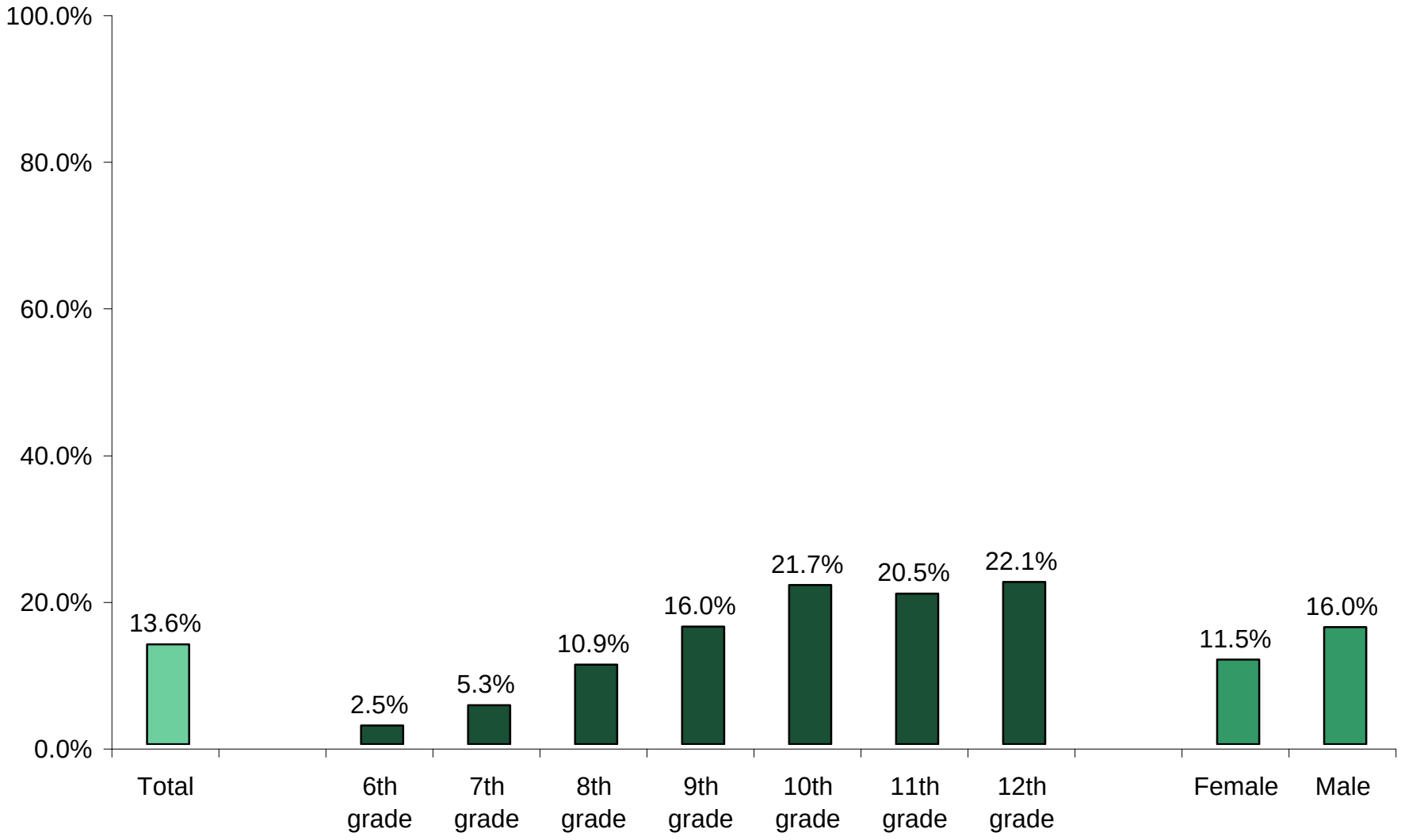
Been Arrested - Past Year



Attacked Someone with Idea of Seriously Hurting Them - Past Year



Been Drunk or High at School - Past Year



RISK AND PROTECTIVE FACTORS

Social research has identified numerous and interrelated factors that increase or decrease the probability of alcohol, tobacco, and other drug use and related problems among youths. These risk and protective factors are found at multiple levels, including the school, the individual and his/her peer group, the community, and the family (Hawkins et al., 1992; Kandel et al., 1986; Newcomb & Felix-Oriz, 1992). Identification of specific populations in which risk factors are high and protective factors are low permits identification of prevention needs and facilitates targeted programming toward the reduction of risk factors and the enhancement of protective factors (Hawkins et al., 1997).

Risk factors are characteristics of school, community, and family environments, and characteristics of students and their peer groups that are known to predict increased likelihood of drug use, delinquency, and violent behaviors among youth (Hawkins, Catalano, & Miller, 1992; Hawkins, Arthur, & Catalano, 1995; Brewer, Hawkins, Catalano, & Neckerman, 1995; Lipsey & Derzon, 1998). For example, children who live in disorganized, crime-ridden neighborhoods are more likely to become involved in crime and drug use than children who live in safer neighborhoods.

Protective factors exert a positive influence or buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. Protective factors identified through research reviewed by the Social Development Research Group (SDRG), University of Washington, Seattle, include individual characteristics; social bonding to family, school, community and peers; and healthy beliefs and clear standards for behavior. For bonding to serve as a protective influence, it must occur through involvement with peers and adults who communicate healthy values and set clear standards for behavior.

Research on risk and protective factors has important implications for prevention efforts. The premise of this approach is that, in order to promote positive youth development and prevent problem behaviors, it is necessary to address those factors that predict the problem. By measuring risk and protective factors in a population, specific risk factors that are elevated and widespread can be identified and targeted by preventive interventions that also promote related protective factors. For example, if academic failure is identified as an elevated risk factor in a community, then mentoring and tutoring interventions can be provided that will improve academic performance, and also increase opportunities and rewards for classroom participation.

The data for risk and protective factor scales are computed as cut-points. The cut-point for a risk scale is the point at which a score on the scale predicts negative outcomes. The cut-point of a protective factor scale is the point at which a score on the scale predicts positive outcomes. Cut-points were determined by dividing youth from a large 7-state data set (all using the survey) into two groups – those with high scores on negative survey outcome areas, and those with low scores in these same areas. Then, each risk factor scale was tested statistically to determine the point at which it significantly predicted membership in the group with high negative outcomes. Protective factor scales were treated in the same way, except they were tested to determine the point at which a scale significantly predicted membership in the group with low scores on the survey outcome areas. For example, approximately 40% of the students were at or above the cut point on the risk scale, "academic failure." This can be interpreted to mean that approximately 40% of the students showed a level of academic failure indicative of negative outcomes.

The following sections outline Maine students' reported experience of risk and protective factors measured by the Maine Youth Drug and Alcohol Use Survey (see Appendix C). There will be a discussion of the risk and protective factors associated with each of the following four domains: School, Peer-Individual, Community, and Family. Each bar on the charts represents the percent of students in each grade (6, 8, 10, 12) who are at 'elevated risk' or 'elevated protection' in the noted factor because of their response to particular questions associated with the indicators. See Appendix B for the definitions of the Risk and Protective Factors and the questions associated with them.

School Climate – Risk Factors

Academic Failure.

Note: While the risk and protective factor framework call this indicator "academic failure", OSA feels that "low academic performance" is more descriptive. See Appendix A for the methodology behind cut-points.

While students in the 10th grade (52.1%) reported the highest percentage of *academic failure*, students in the 6th grade (40.5%) reported the lowest percentage of *academic failure*.

Low Commitment to School.

Maine students in grades 6, 8, 10, and 12 all reported similar percentages of *low commitment to school*, ranging from a low of 46.9% (grade 12) to a high of 49.9% (grade 10).

School Climate – Protective Factors

Opportunities for Positive Involvement.

Nearly two-thirds of Maine students in grades 6, 8, 10, and 12 reported that they experience *opportunities for positive involvement* in school. The percentages reported ranged from a low of 60.7% (grade 10) to a high of 65.9% (grade 8).

Rewards for Positive Involvement.

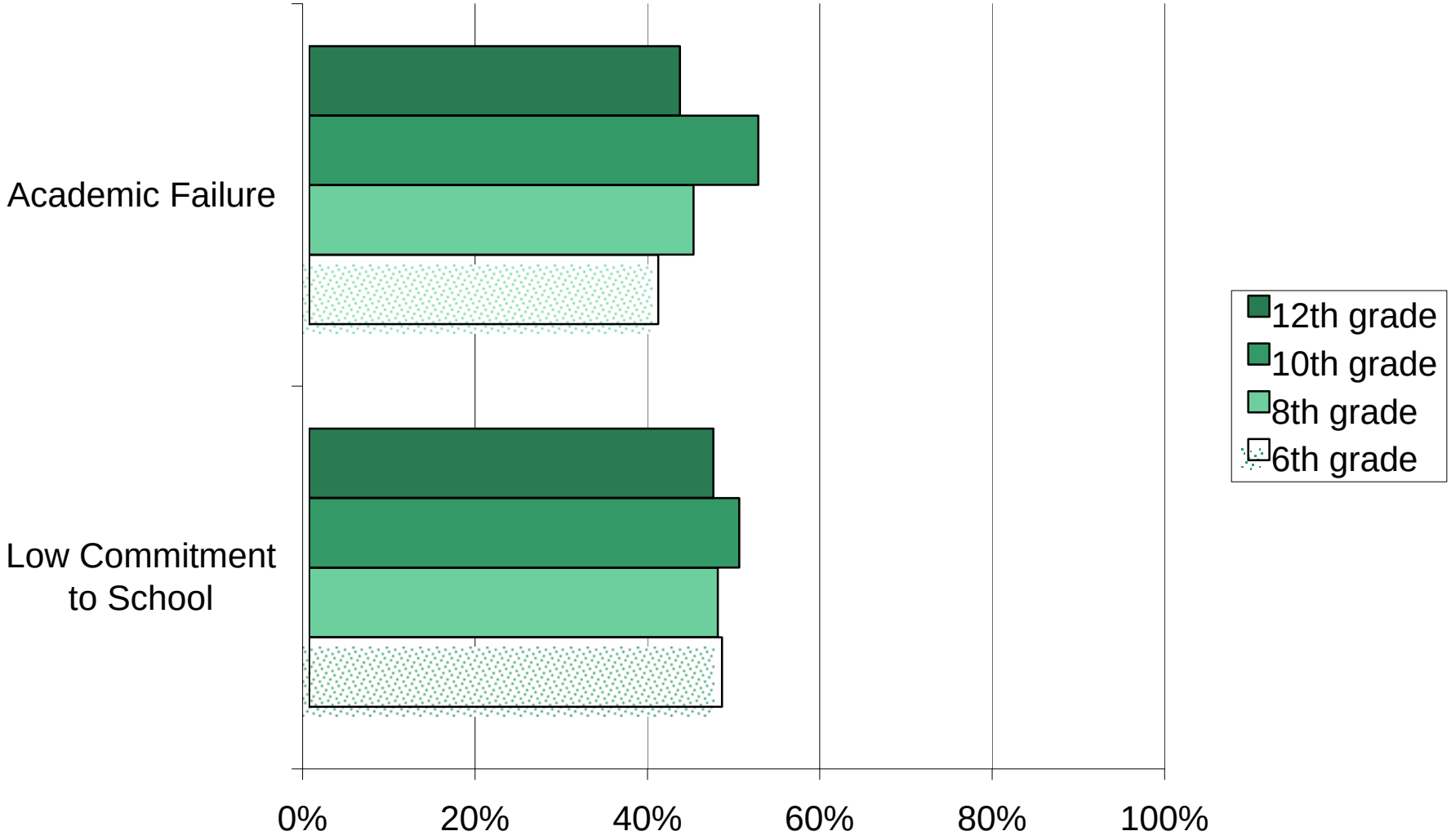
Maine 10th grade (64.4%) and 6th grade (58.2%) students reported higher levels of *rewards for positive involvement* in school than did students in 12th grade (54.7%) or 8th grade (52.7%).

Peer-Individual Climate – Risk Factors

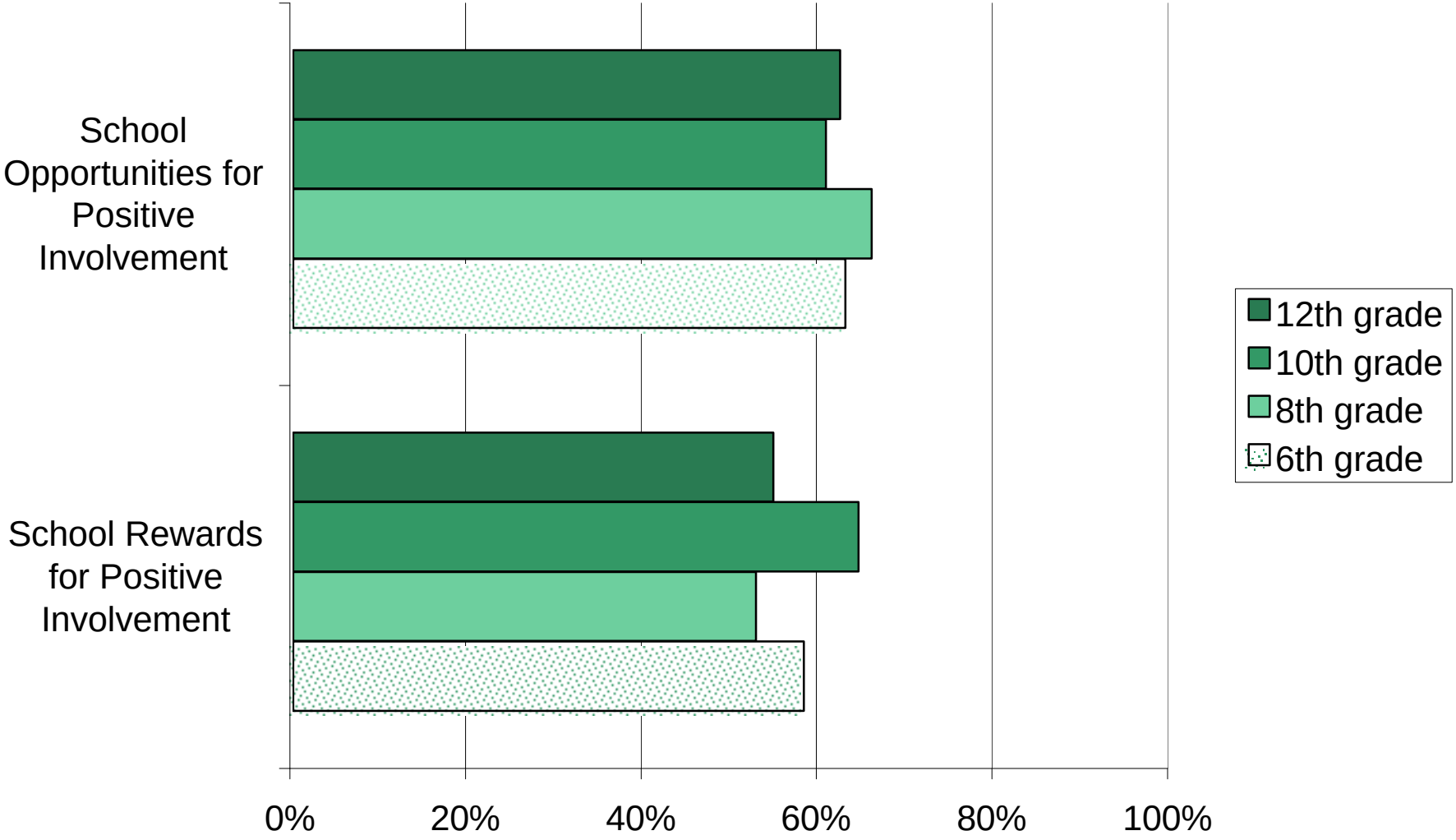
Rebelliousness.

Students in the 6th grade (49.6%) are more likely to report high levels of *rebelliousness* than students in 8th grade (37.9%), 10th grade (44.4%), or 12th grade (39.5%).

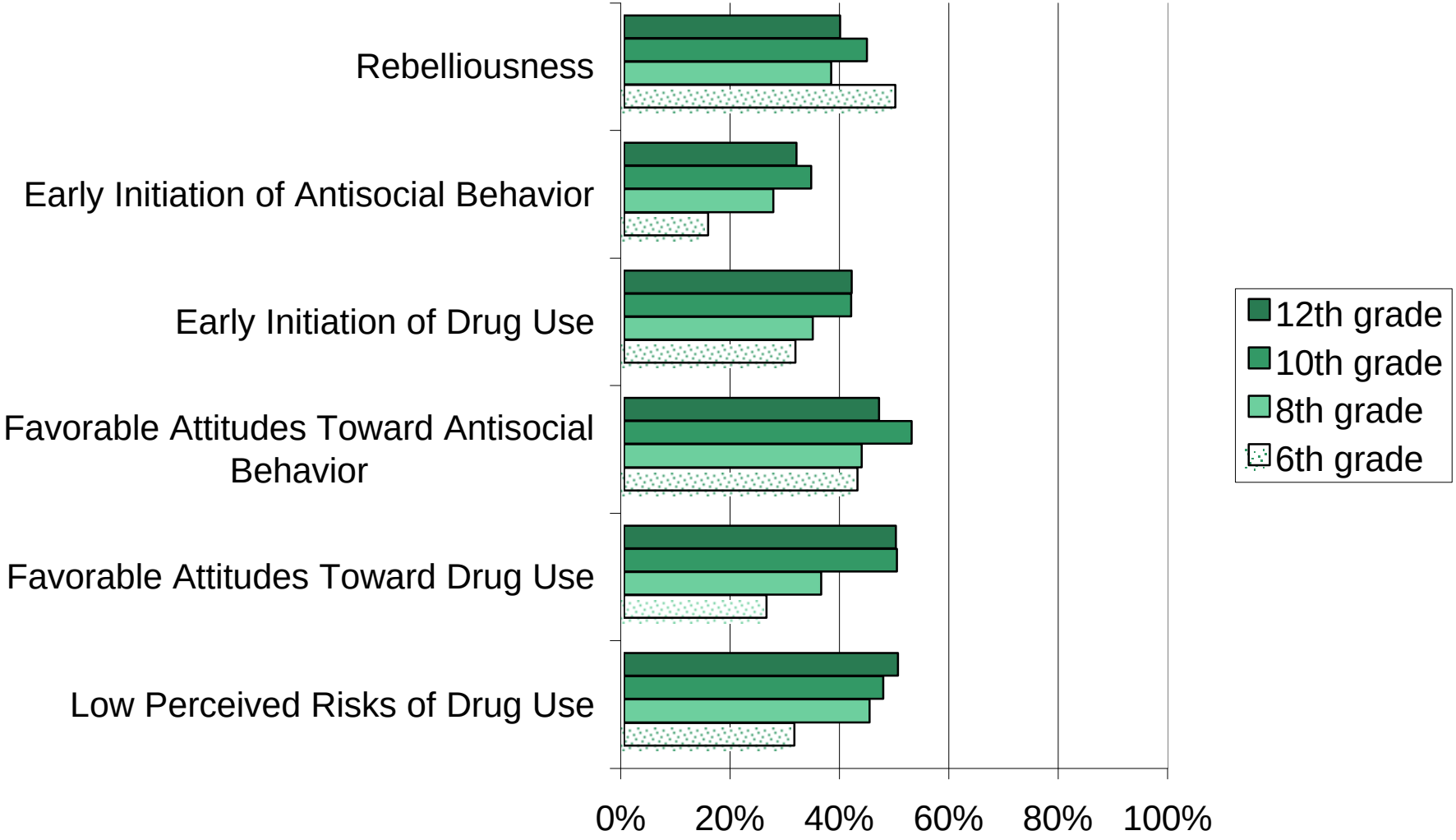
School Climate - Risk Factors



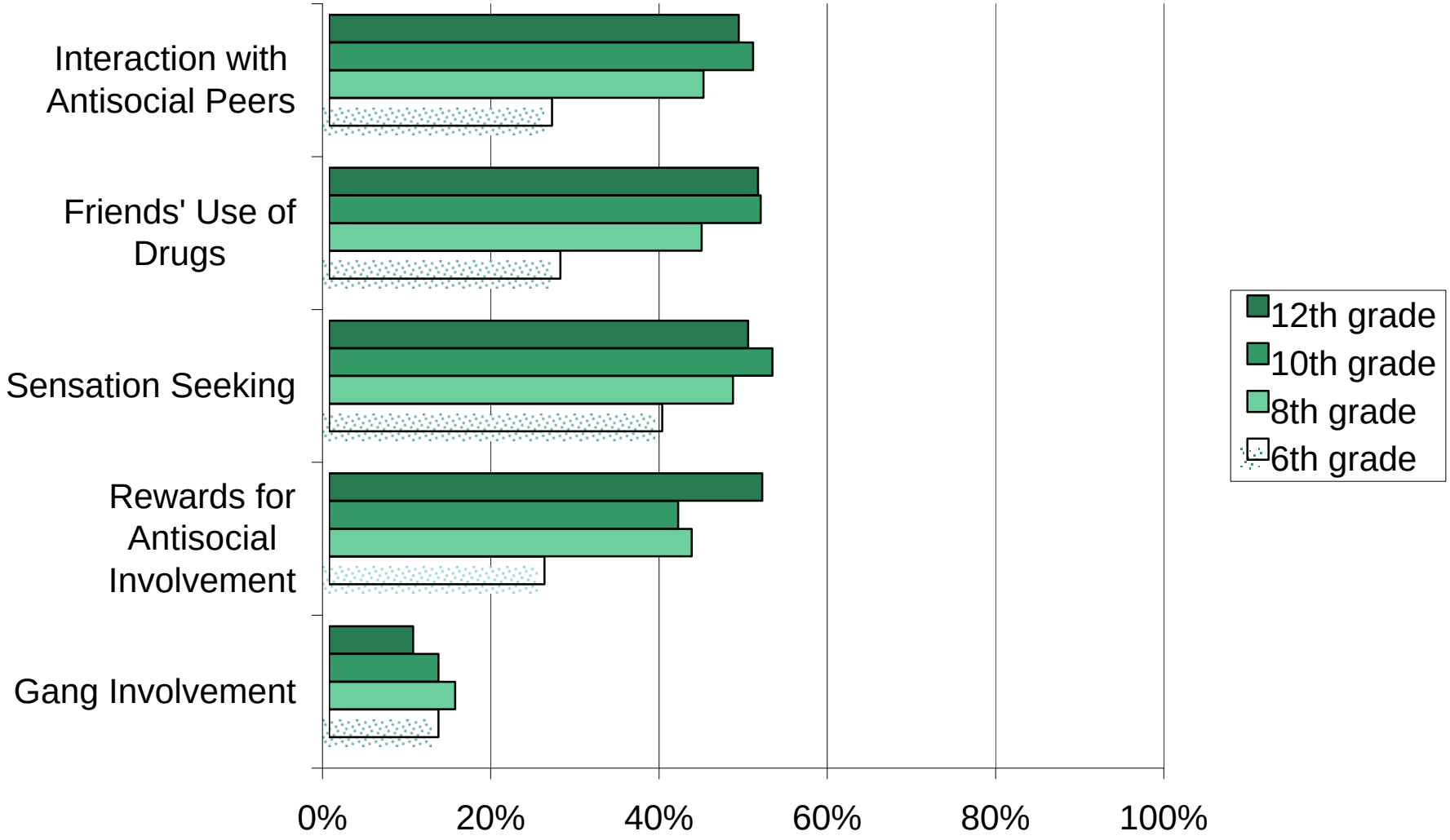
School Climate - Protective Factors



Peer-Individual Climate - Risk Factors (Part 1)



Peer-Individual Climate - Risk Factors (Part 2)



Early Initiation of Antisocial Behavior and *Early Initiation of Drug Use.*

Students in grade 6 (15.4%) were less likely than students in grades 8 (27.3%), 10 (34.2%), or 12 (31.5%) to indicate an *early initiation of antisocial behavior*.

Students in the higher grades were more likely than those in the lower grades to report an *early initiation of drug use*; percentages ranged from a high of 41.6% in grade 12 to a low of 31.3% in grade 6.

Favorable Attitudes Toward Antisocial Behavior.

Maine students surveyed in grade 10 (52.6%) were more likely than those in grades 12 (46.6%), 8 (43.5%), and 6 (42.7%) to report *favorable attitudes toward antisocial behavior*.

Favorable Attitudes Toward Drug Use.

Students in grade 6 (26.1%) and grade 8 (36.1%) were less likely than those in grade 10 (49.9%) and grade 12 (49.7%) to indicate *favorable attitudes toward drug use*.

Low Perceived Risks of Drug Use.

Students in the higher grades were more likely than those in the lower grades to report *low perceived risks of drug use*; percentages ranged from a high of 50.1% in grade 12 to a low of 31.2% in grade 6.

Interaction with Antisocial Peers.

Maine 6th grade students surveyed were the least likely to report *interaction with antisocial peers*, at 26.5%. Students in the 10th grade (50.4%) reported the highest levels of interaction with antisocial peers.

Friends' Use of Drugs.

Students in the 12th grade (51.0%) and 10th grade (51.3%) were more likely to report higher levels of *friends' use of drugs* than those in the 8th grade (44.3%) or 6th grade (27.5%).

Sensation Seeking.

Maine 6th grade students surveyed (39.6%) reported comparatively low levels of *sensation seeking*, compared with approximately 50% of those in the other grades.

Rewards for Antisocial Involvement.

Students in the 12th grade (51.5%) were nearly twice as likely as those in the 6th grade (25.6%) to report receiving *rewards for antisocial involvement*.

Gang Involvement.

Overall, low levels of *gang involvement* were reported, ranging from a low of 10% (12th grade) to a high of 15.3% (8th grade)

Peer-Individual Climate – Protective Factors

Belief in the Moral Order.

More than one-half of students reported a *belief in the moral order*, ranging from a high of 63.1% (10th grade) to a low of 53.6% (12th grade).

Religiosity.

Students in grades 12 (60.9%) and 6 (44.6%) were more likely than those in grades 8 (35.9%) and 10 (30.8%) to report high levels of *religiosity.*

Social Skills.

Students in the 10th grade (47.5%) reported lower levels of *social skills* than those in 6th grade (73.7%), 8th grade (60.0%), and 12th grade (61.6%).

Community Climate – Risk Factors

Low Neighborhood Attachment.

Students in the higher grades were more likely than those in the lower grades to report *low neighborhood attachment*; percentages ranged from a high of 45.8% in grade 12 to a low of 33.9% in grade 6.

Community Disorganization.

Students in the 10th grade reported the highest levels of *community disorganization* at 46.1%.

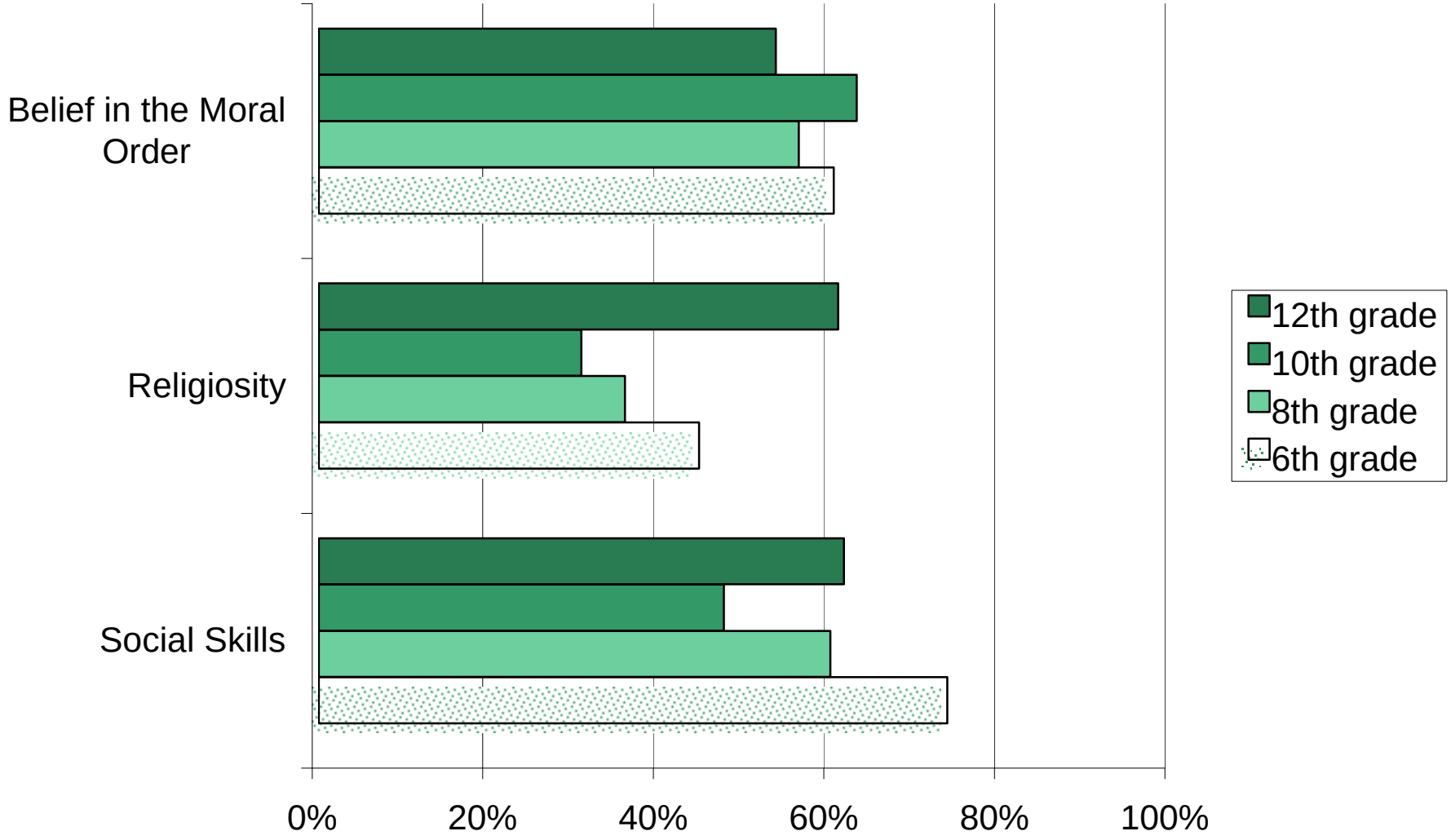
Transitions and Mobility.

Maine students in grades 6, 8, 10, and 12 all reported similar percentages of *transitions and mobility*, ranging from a low of 34.5% (grade 8) to a high of 38.3% (grade 6).

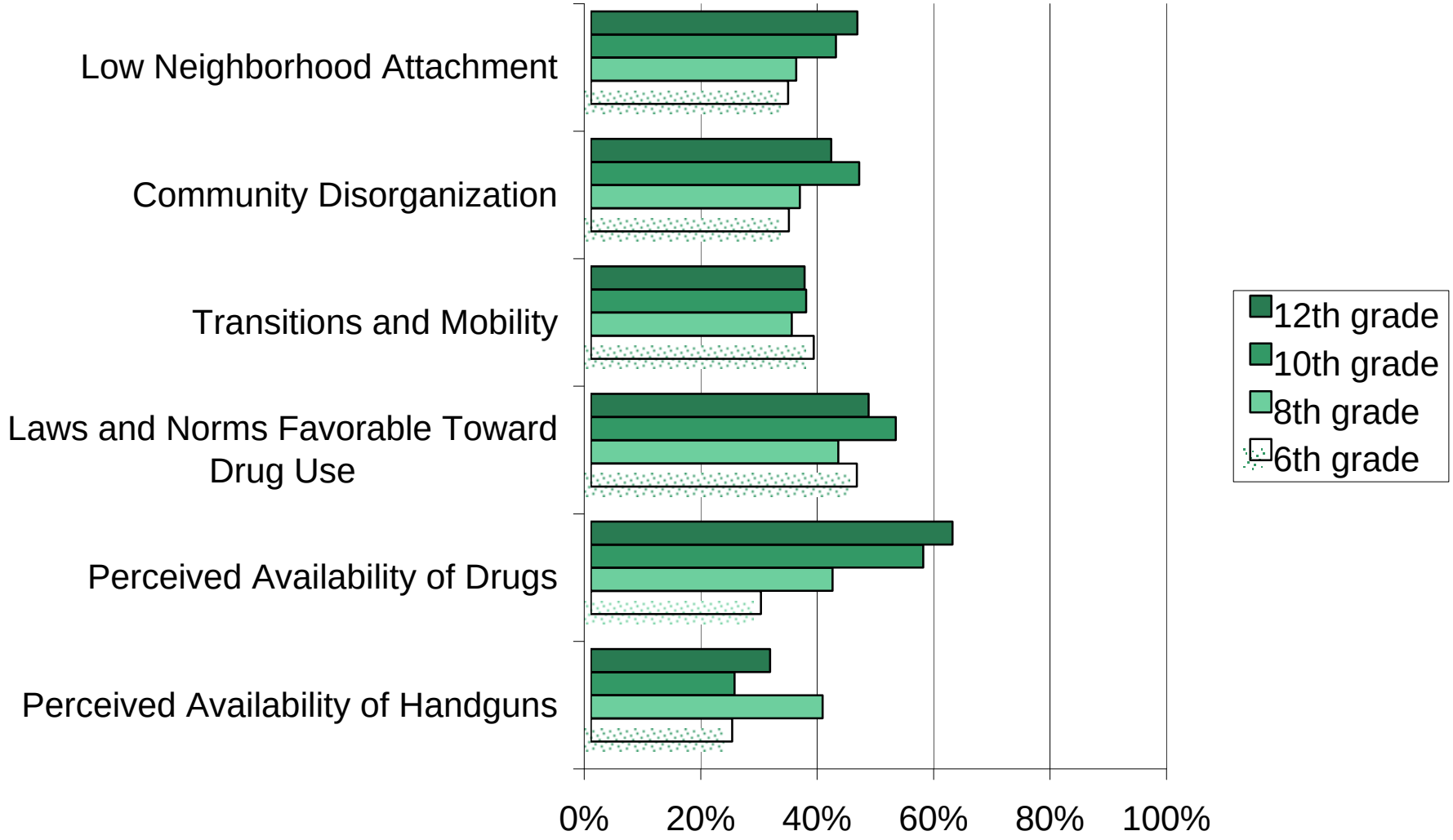
Laws and Norms Favorable Toward Drug Use.

While 10th grade students (52.4%) reported the highest levels of *laws and norms favorable toward drug use*, students in the 8th grade (42.5%) reported the lowest levels in this area of risk.

Peer-Individual Climate - Protective Factors



Community Climate - Risk Factors



Perceived Availability of Drugs and *Perceived Availability of Handguns.*

Students in the higher grades were more likely than those in the lower grades to report higher levels of *perceived availability of drugs*; percentages ranged from a high of 62.1% in grade 12 to a low of 29.2% in grade 6.

Students in the 8th grade (39.8%) reported the highest levels of *perceived availability of handguns*, followed by those in the 12th grade (30.8%).

Community Climate – Protective Factors

Opportunities for Positive Involvement.

Students in the lower grades were more likely than those in the higher grades to report higher levels of *opportunities for positive involvement* in the community; percentages ranged from a high of 57.4% in grade 6 to a low of 42.0% in grade 12.

Rewards for Positive Involvement.

While students in the 6th grade (57.8%) indicated the highest levels of *rewards for positive involvement* in the community, 8th grade students (41.0%) reported the lowest levels of protection in this area.

Family Climate – Risk Factors

Poor Family Management.

Students in the higher grades were more likely than those in the lower grades to report higher levels of *poor family management*; percentages ranged from a high of 49.0% in grade 12 to a low of 37.7% in grade 6.

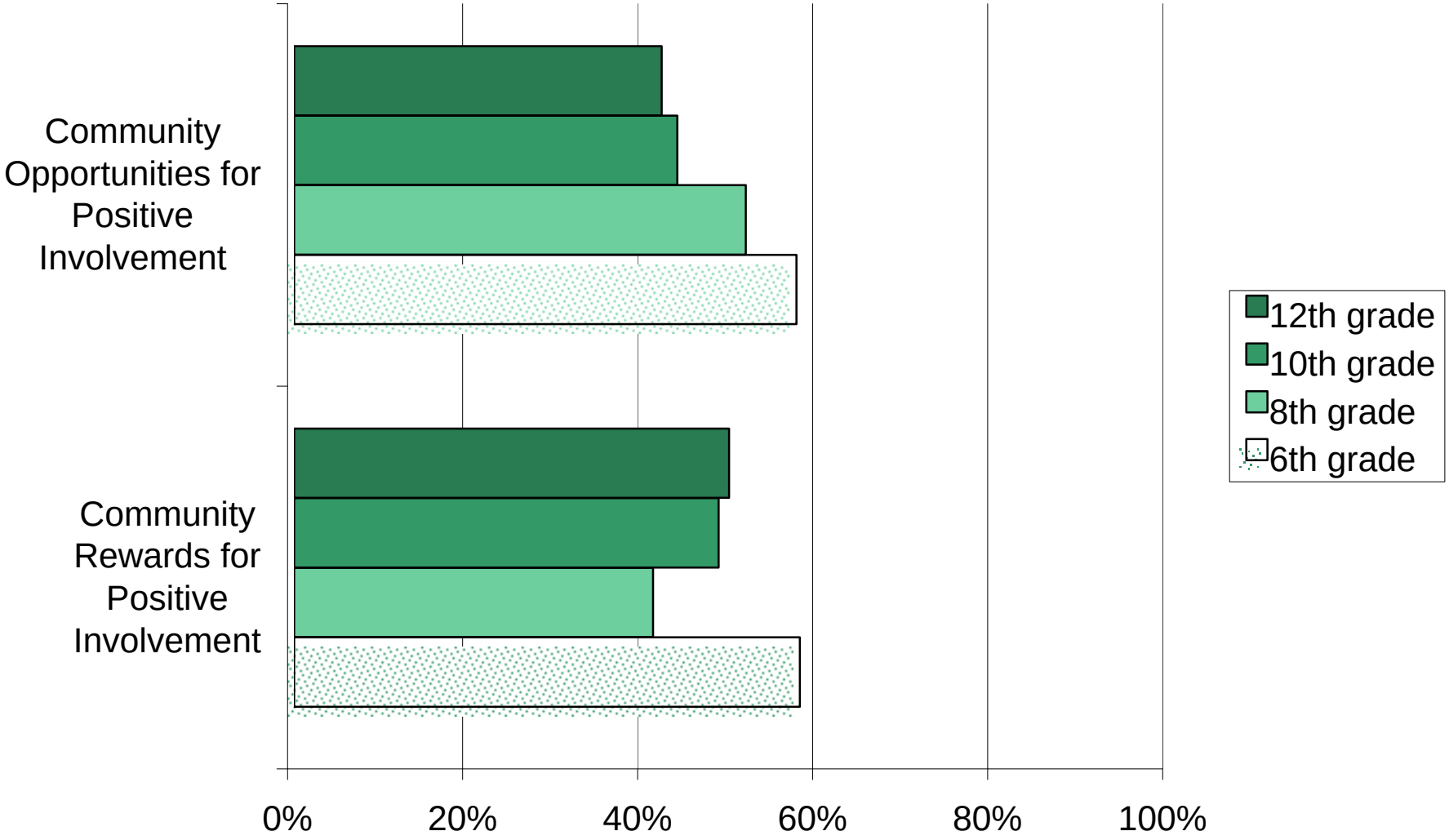
Family Conflict.

Students in the 8th grade (49.1%) were the most likely to report the highest levels of *family conflict*.

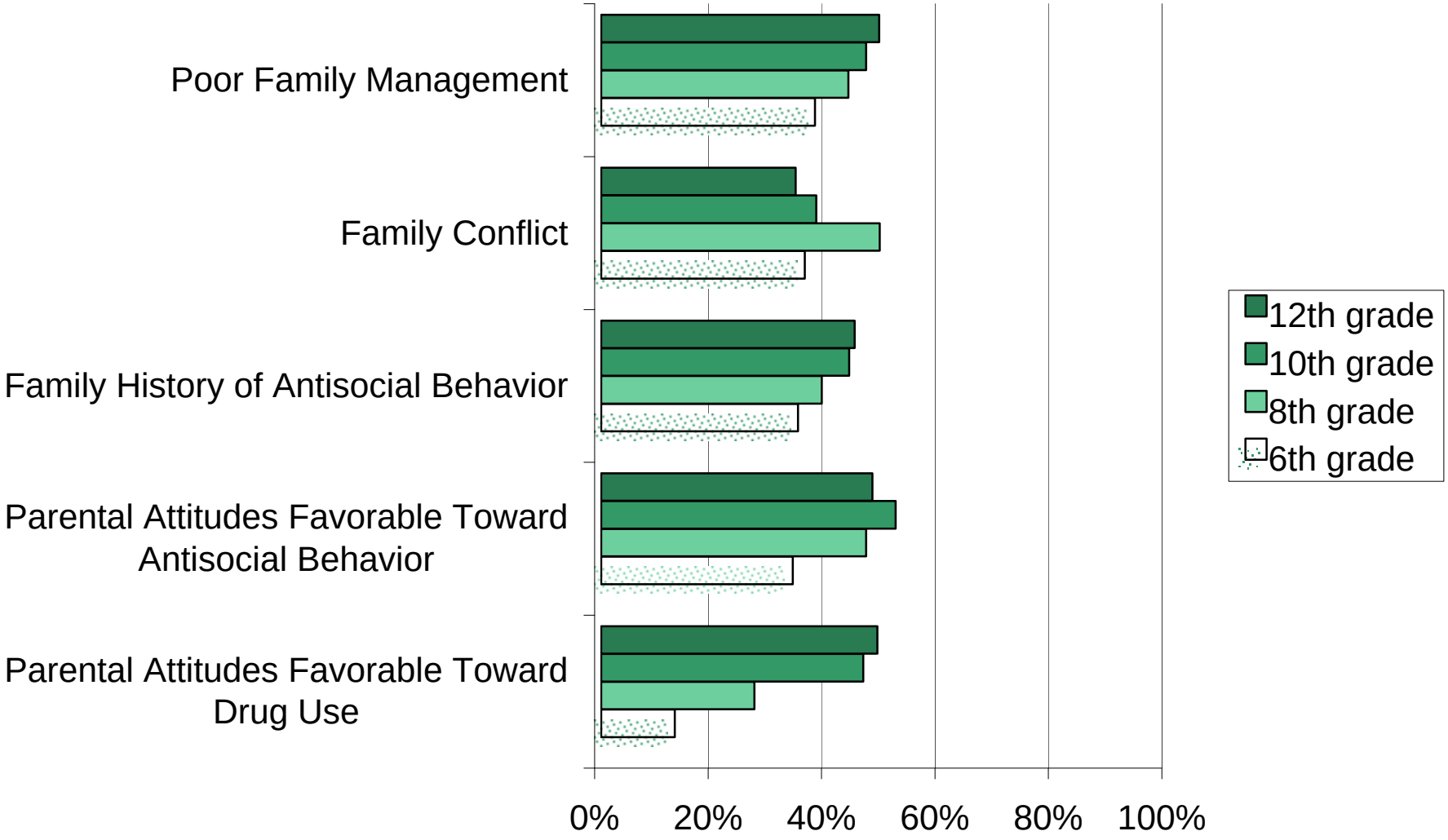
Family History of Antisocial Behavior.

Students in the higher grades were more likely than those in the lower grades to report higher levels of *family history of antisocial behavior*; percentages ranged from a high of 44.7% in grade 12 to a low of 34.7% in grade 6.

Community Climate - Protective Factors



Family Climate - Risk Factors



Parental Attitudes Favorable Toward Antisocial Behavior and Parental Attitudes Favorable Toward Drug Use.

While students in grade 10 (51.9%) reported the highest levels of *parental attitudes favorable toward antisocial behavior*, 6th grade students (33.8%) reported the lowest levels of risk in this area.

Students in the higher grades were more likely than those in the lower grades to report higher levels of *parental attitudes favorable toward drug use*; percentages ranged from a high of 48.7% in grade 12 to a low of 13.0% in grade 6.

Family Climate – Protective Factors

Family Attachment.

Students in the 10th grade (47.9%) reported the lowest levels of protection in terms of *family attachment*.

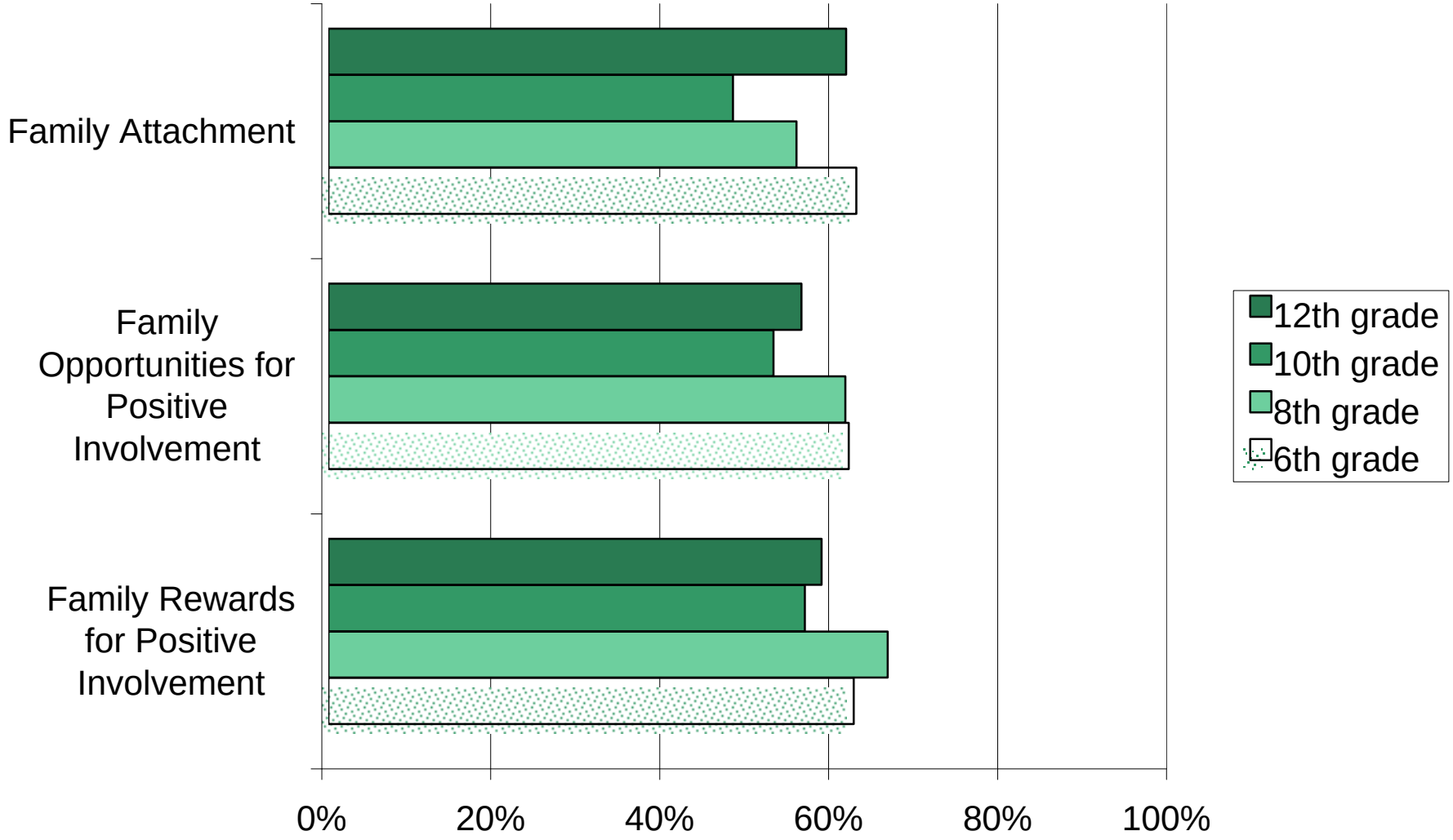
Opportunities for Positive Involvement.

Students in the 6th grade (61.6%) and 8th grade (61.2%) reported the highest levels of *opportunities for positive involvement* in the family.

Rewards for Positive Involvement.

While students in the 8th grade (66.2%) reported the highest levels of *rewards for positive involvement* in the family, 10th grade students (56.4%) reported the lowest levels of protection in this area.

Family Climate - Protective Factors



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APPENDIX A

METHODOLOGY

METHODOLOGY

Questionnaire. The 2000 MYDAUS was adapted from the Student Survey of Risk and Protective Factors and Prevalence of Alcohol, Tobacco, and Other Drug Use, which was developed by the Social Development Research Group (SDRG) at the University of Washington. The SDRG questionnaire was originally developed for use in the Six-State consortium (of which Maine was a member) for substance abuse prevention needs assessment studies sponsored by the Center for Substance Abuse Prevention (CSAP). As a follow-up to that effort, a new grant (called the Diffusion Project) with seven participating states is administering the same survey over a 5-year period. This survey is scheduled to be re-administered in 2002. The instrument was printed on an electronically scannable form prepared by Scantron, Inc. of Tustin, California. A copy of the instrument is included in Appendix D.

Sample Design. In keeping with the methodology of the 1998/99 survey, the OSA elected not to draw a randomized sample of schools to take part in the survey, but rather solicited participation from *all* public schools in Maine with any grades 6 through 12. This was done with the intention of increasing usable data on both the school and county levels and to provide baseline data for schools applying for grants under the Safe and Drug Free Schools Act. In the end, only those schools that volunteered to take part in the survey were included in the sample.

School Recruitment Procedures. To help elicit school participation, the OSA sent a recruitment letter to all school superintendents in August of 1999. The recruitment letter briefly described the purpose of the survey and asked that superintendents include MYDAUS in their 1999-2000 school year survey schedule. A subsequent letter was sent in the Fall of 1999 by Pan Atlantic Consultants (PAC). This letter re-introduced the project, conveyed the importance and purpose of the project, and encouraged participation. It also contained a very brief description of the survey and its content. A letter of intent fax-back form was enclosed with the recruitment letter. Superintendents who wanted the school(s) in their district to participate in the survey completed the form and faxed it back to PAC. On the form, superintendents included contact information , schools in their system that serve any grades 6 through 12, and expected enrollment for each of those schools. The staff at PAC then contacted each individual school by phone to coordinate their participation in the survey.

Student Consent Procedures. Passive consent methodology was used. To obtain passive consent, participating schools were required to send an informational letter to parents via the U.S. mail two weeks prior to survey administration. The letter conveyed the purpose and importance of the survey and encouraged participation. It also explained that the survey was anonymous, participation was voluntary, and results would be only presented in group-summary form. The letter informed parents that a copy of the survey instrument was on file at their child's schools if they wished to review it. Parents who wished to decline their child's participation were asked to notify the school. Any student whose parent letter was returned undeliverable was not surveyed.

Within School Sampling. The total school population (of 6 through 12 grades) was targeted in all participating schools. Students whose parents did not give them permission to participate in the survey and/or who did not themselves wish to participate in the survey were asked to sit quietly at their desks with an alternate activity during survey administration. Due to parental or student declines and absenteeism, the average attrition rate was approximately 25% for passive consent.
Data Collection. Participating schools administered the survey during the week of February 7 to 11, 2000. Schools that administered the survey more than one week after the deadline received an individual school report, but was not included in the overall statewide sample. School staff members were trained how to administer the survey themselves. This was done primarily through group training sessions throughout the state.

Considerable precautions were taken to protect the anonymity of individual students in order to increase the likelihood of valid responses. First, student consent was required; that is, youths were asked to participate in the survey, informed of the confidentiality of their responses, and informed that their response was voluntary (i.e., they could refuse to answer any questions that they did not want to answer). Second, teachers were asked to remain seated during the administration of the survey to lend further credence to assurances of anonymity. Third, students were asked to insert their completed questionnaires in a large envelope as it was passed around the room at the end of the survey period. The last student sealed the envelope before handing it back to the teacher.

Data Processing. After completed questionnaires were returned to PAC in Portland, ME, the surveys were batched, scanned, and edited. Consistency checks were run to exclude careless, invalid, or logically inconsistent responses using syntax originally developed by the Social Development Research Group (SDRG). Surveys were excluded from the final analytic file if they met any of the following criteria:

- Students were asked to indicate their honesty level in completing the survey. Students who reported that they were ‘not at all honest’ were deleted from the analytic file.

- Students were asked about their use of a fake drug to help determine if students were answering affirmatively without carefully reading the questions. Students who answered that they had used the fake drug "derbisol" in both the lifetime and the past month were deleted from the analytic file.

- Students who identified using alcohol and/or drugs an improbable number of times in the 30 days preceding the survey also were excluded from the analytic file.

Weighting. Because the 2000 survey was not a random sample, it was not possible to weight the data to be representative of the state as a whole. However, because the overall survey response varied across grades, across the 16 counties, and for males and females, a set of post-stratified weights were computed for use in data analysis. These adjusted weights were used to correct the data, to the extent possible, for the response differentials observed.

Fall enrollment data with student counts by county, gender, and grade were compared with the number of students surveyed in the same classification. The data file contained county, gender, and grade information for 29,483 students, or 97% of those surveyed. For these 29,483 students, the adjusted survey weights were calculated as the total student enrollment for each cell of the grade/gender/county cross-classification, divided by the number of students tested in that cell.

There were 1,008 students tested (or 3% of those surveyed) for which gender and/or grade were missing. An average weight based on the variables that were known was used for these students.

Risk and Protective Factors Scales and Cut-Points. The scales for the risk and protective factors were provided by the University of Washington's Social Development Research Group (SDRG). Risk and protective factor scales were constructed using Likert scaling practices. The response options of some items were recoded or reordered to provide a continuum from high to low appropriate for the scale. For risk scale items, a high value reflects an undesirable attitude or behavior. For protective scale items, a high value reflects a desirable attitude or behavior. For the scaled data, the cut point was determined by taking the median value (plus 0.15 times the standard deviation) for each scale for all the weighted 1998 data from all seven participating states in the Diffusion Project consortium. If the individual student's score was above the cut point, s/he was considered at risk (or protected).

By way of illustration, the risk factor in the school domain described as "academic failure" is based on the scores from two questions. One asks, "Putting them all together, what were your grades like last year?" (Question 14). The responses are recoded so that the lowest grades have the highest values; for instance, "F" is given the value of 4, "C" is 2.5 and "A" is 1. The second question is, "Are your school grades better than the grades of most students in your class?" (Question 24), with the responses ranging from an emphatic "NO!" (4 points) to an emphatic "YES!" (1 point). A student has to answer both questions to get a score for this risk factor. The mean of the two responses is compared to the cut-point calculated using the scores of all students in the seven states who answered the two questions. In this case, the cut-point for 6^{th} graders is 1.977. If a student scored higher than this, (s)he was considered "at risk for academic failure".

Comparisons in Methodology with Past MYDAUS Surveys. The MYDAUS was administered in 1995, 1996, 1998/1999, and 2000. These earlier data provide important comparisons to the 2000 values for the purpose of monitoring any changes in drug use behaviors over time among Maine school students. There have been significant changes in methodology throughout the history of the survey that may have impacted the results.

One of the methodological differences between the survey administrations is related to sampling. In the 1995 and 1996 administrations, a representative, random sample of schools was selected. However, in 1998/1999 and 2000, all schools were invited to participate and students in those schools that agreed to participate were surveyed. This volunteer sample at the school level may have systematically biased the results; if, for example, students at high risk for drug use chose not to participate in the survey.

A second important change in the methodology concerns the parental consent procedure. The 1995, 1996, and 2000 surveys employed a passive consent protocol, in which parents were notified that their children would be surveyed unless they contacted the school to disallow their children from participating in the survey. In 1998/99, an active consent protocol was implemented; active consent requires parents to return a form to allow their children to participate in the survey. The difference in consent protocol may have affected the results of the 1998/1999 survey if the parents of high risk students were more or less likely to turn in the form and grant permission for their child to participate.

A third change in the methodology is related to within-school sampling of students. In the 1995 and 1996 surveys, random samples of students were asked to participate in the survey. In the 1998/1999 survey, the total student population was targeted in schools with enrollment figures of 250 or fewer students. Schools with more than 250 students were sampled through a target population that would provide data on an individual school level that would not exceed a ±5.00% margin of error at the 95% confidence interval. In 2000, participating schools were asked to include their entire school population in the survey – regardless of school size.

APPENDIX B

RISK AND PROTECTIVE FACTOR DEFINITIONS

***The following risk and protective factors have been identified through research reviewed by the Social Development Research Group (SDRG), University of Washington, Seattle. SDRG obtained the specific definitions and reasoning listed below from* Communities that Care: Action for Drug Abuse Prevention.**

School Climate – Risk Factors

Academic Failure.

Definition: A respondent's grade based performance.
Questions: 14, 24
Reasoning: Beginning in the late elementary grades (grades 4-6) academic failure increases the risk of both drug abuse and delinquency. It appears that the experience of failure itself, for whatever reasons, increases the risk of problem behaviors.

Low Commitment to School.

Definition: The degree to which students find school and homework interesting and important.
Questions: 15b, 26, 27, 28, 29a-c
Reasoning: Surveys of high school seniors have shown that the use of hallucinogens, cocaine, heroin, stimulants, and sedatives or non-medically prescribed tranquilizers is significantly lower among students who expect to attend college than among those who do not. Factors such as liking school, spending time on homework, and perceiving the coursework as relevant are also negatively related to drug use.

School Climate – Protective Factors

Opportunities for Positive Involvement.

Definition: The degree to which respondents feel that they can interact with teachers and can participate in school related activities.
Questions: 16, 17, 19, 20, 25
Reasoning: When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in drug use and other problem behaviors.

Rewards for Positive Involvement.

Definition: The degree to which respondents feel acknowledged by teachers and their parents relative to their (the students) school involvement and performance.
Questions: 14, 24
Reasoning: When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in substance use and other problem behaviors.

Peer-Individual Climate – Risk Factors

Rebelliousness.

Definition: The extent to which respondents report disregarding rules.

Questions: 33, 36, 49

Reasoning: Young people who do not feel part of society, are not bound by rules, don't believe in trying to be successful or responsible, or who take an active rebellious stance toward society, are at higher risk of abusing drugs. In addition, high tolerance for deviance, a strong need for independence, and normlessness have all been linked with drug use.

Early Initiation of Antisocial Behavior and *Early Initiation of Drug Use.*

Definition: The age at which respondents first try a variety of negative behaviors, including smoking marijuana, drinking alcohol, getting arrested, etc.

Questions: 31a-h

Reasoning: Early onset of drug use predicts misuse of drugs. The earlier the onset of any drug use, the greater the involvement in other drug use and the greater frequency of use. Onset of drug use prior to the age of 15 is a consistent predictor of drug abuse, and a later age of onset of drug use has been shown to predict lower drug involvement and a greater probability of discontinuation of use.

Favorable Attitudes Toward Antisocial Behavior.

Definition: The extent to which respondents themselves feel that engaging in various anti-social behaviors for youths their age is appropriate.

Questions: 32a-e

Reasoning: Young people who accept or condone antisocial behavior are more likely to engage in a variety of problem behaviors, including drug use.

Favorable Attitudes Toward Drug Use.

Definition: The extent to which respondents themselves feel that drinking, smoking, or taking illicit drugs is appropriate for youths their age.

Questions: 32f-i

Reasoning: Initiation of use of any substance is preceded by values favorable to its use. During the elementary school years, most children express anti-drug, anti-crime, and pro-social attitudes and have difficulty imagining why people use drugs. However, in middle school, as more youth are exposed to others who use drugs, their attitudes often shift toward greater acceptance of these behaviors. Youth who express positive attitudes toward drug use are at higher risk for subsequent drug use.

Low Perceived Risks of Drug Use.

Definition: The extent to which respondents themselves feel that people risk harming themselves if they smoke cigarettes, drink or smoke marijuana.

Questions: 55a-d

Reasoning: Young people who do not perceive drug use to be risky are far more likely to engage in drug use.

Interaction with Antisocial Peers.

Definition: The number of a respondents' friends who engage in anti-social activities.

Questions: 30e-j

Reasoning: Young people who associate with peers who engage in problem behaviors are at higher risk for engaging in antisocial behavior themselves.

Friends' Use of Drugs.

Definition: The number of a respondents' friends who take drugs, drink alcohol and smoke cigarettes.

Questions: 30a-d

Reasoning: Young people who associate with peers who engage in alcohol or substance abuse are much more likely to engage in the same behavior. Peer drug use has consistently been found to be among the strongest predictors of substance use among youth. Even when young people come from well-managed families and do not experience other risk factors, spending time with friends who use drugs greatly increases the risk of that problem developing.

Sensation Seeking.

Definition: The extent to which respondents report that they do dangerous and crazy things.

Questions: 38a-c

Reasoning: Young people who seek out opportunities for dangerous, risky behavior in general are at higher risk for participating in drug use and other problem behaviors.

Rewards for Antisocial Involvement.

Definition: The extent to which respondents feel they would be considered cool if they smoked cigarettes, drank, smoked marijuana, or carried a handgun.

Questions: 42a-d

Reasoning: Young people who receive rewards for their antisocial behavior are at higher risk for engaging further in antisocial behavior and substance use.

Gang Involvement.

Definition: The extent to which respondents report being in a gang or have friends that are in a gang.

Questions: 39, 30k

Reasoning: Involvement with gangs formalizes rewards for antisocial involvement, thereby increasing the likelihood of engaging in antisocial behavior and substance use.

Peer-Individual Climate – Protective Factors

Belief in the Moral Order.

Definition: The degree to which respondents feel it is OK to fight, steal, cheat and be dishonest.

Questions: 34, 35, 37, 47

Reasoning: Young people who have a belief in what is "right" or "wrong" are less likely to use drugs.

Religiosity.

Definition: The frequency of religious service attendance.

Questions: 48

Reasoning: Young people who regularly attend religious services are less likely to engage in problem behaviors.

Social Skills.

Definition: Scenarios that require the respondent to make a decision about the best, or most pro-social option.

Questions: 43, 44, 45, 46

Reasoning: Young people who are socially competent and engage in positive interpersonal relations with their peers are less likely to use drugs and engage in other problem behaviors.

Community Climate – Risk Factors

Low Neighborhood Attachment.

Definition: The degree to which respondents enjoy being in their neighborhood.

Questions: 89, 91, 101

Reasoning: Low levels of bonding to the neighborhood is related to higher levels of juvenile crime and drug selling.

Community Disorganization.

Definition: Perceptions of how much crime and other negative events occur in the respondents' neighborhood and their feelings of safety.

Questions: 93a-d, 99

Reasoning: Research has shown that neighborhoods with high population density, lack of natural surveillance of public places, physical deterioration, and high rates of adult crime also have higher rates of juvenile crime and drug selling.

Transitions and Mobility.

Definition: Perceptions of how much people move in and out of a respondents' neighborhood, and the number of times respondents report changing homes or schools over different periods of time.

Questions: 94, 95, 98, 100, 102

Reasoning: Neighborhoods with high rates of residential mobility have been shown to have higher rates of juvenile crime and drug selling, while children who experience frequent residential moves and stressful life transitions have been shown to have higher risk for school failure, delinquency, and drug use.

Laws and Norms Favorable Toward Drug Use.

Definition: The degree to which respondents think youth in their neighborhood would be caught by the police if they smoked marijuana, drank alcohol, or carried a handgun and the extent to which they feel parents in the neighborhood would think it's wrong to smoke cigarettes or marijuana or to drink alcohol.

Questions: 79, 81, 83, 86a-c

Reasoning: Research has shown that legal restrictions on alcohol and tobacco use, such as raising the legal drinking age, restricting smoking in public places, and increased taxation have been followed by decreases in consumption. Moreover, national surveys of high school seniors have shown that shifts in normative attitudes toward drug use have preceded changes in prevalence of use.

Perceived Availability of Drugs and *Perceived Availability of Handguns*.

Definition: The degree to which respondents think it is easy for youths to get alcohol, cigarettes, illicit drugs, and handguns.

Questions: 77, 78, 80, 82, 84

Reasoning: The availability of cigarettes, alcohol, marijuana, and other illegal drugs has been related to use of these substances by adolescents. Availability of handguns is also related to a higher risk of crime and substance use by adolescents.

Community Climate – Protective Factors

Opportunities for Positive Involvement.

Definition: Perceived opportunities to engage in pro-social activities in the community and to engage with adults.

Questions: 92, 97a-e

Reasoning: When opportunities are available in a community for positive participation, children are less likely to engage in substance use and other problem behaviors.

Rewards for Positive Involvement.

Definition: The degree to which respondents feel people in their neighborhood recognize, acknowledge and support their positive behaviors.

Questions: 90, 96, 103

Reasoning: Rewards for positive participation in activities helps children bond to the community, thus lowering their risk for substance use.

Family Climate – Risk Factors

Poor Family Management.

Definition: The extent to which respondents report that their parents would catch them if they drank liquor, carried a handgun or skipped school, as well as the extent to which respondents report that there are clear family rules, that parents know the whereabouts of their children, that there are rules about alcohol and drug use, and that parents monitor homework completion.

Questions: 108, 111, 114, 115, 116, 117, 129, 131

Reasoning: Parents' use of inconsistent and/or unusually harsh or severe punishment with their children places them at higher risk for substance use and other problem behaviors. Parents' failure to provide clear expectations and to monitor their children's behavior makes it more likely that they will engage in drug abuse whether or not there are family drug problems.

Family Conflict.

Definition: The extent to which respondents report family members arguing and insulting each other.

Questions: 110, 112, 130

Reasoning: Children raised in families high in conflict, whether or not the child is directly involved in the conflict, appear at risk for both delinquency and drug use.

Family History of Antisocial Behavior.

Definition: Respondents reporting whether they have siblings that drink, smoke marijuana, smoke cigarettes, have been expelled, or taken a handgun to school; and the number of adults they know who have used and/or dealt drugs, gotten drunk or high, or have engaged in illegal activities.

Questions: 87a-d, 107a-e, 109

Reasoning: When children are raised in a family with a history of problem behaviors (e.g., violence or substance use), the children are more likely to engage in these behaviors.

Parental Attitudes Favorable Toward Antisocial Behavior and *Parental Attitudes Favorable Toward Drug Use.*

Definition: The degree to which respondents report their parents would feel it is wrong if they (the respondents) steal, draw graffiti, or fight; and the degree to which respondents report their parents would feel it is wrong if they (the respondents) drink liquor, smoke marijuana, or smoke cigarettes.

Questions: q6a-f

Reasoning: In families where parents use illegal drugs, are heavy users of alcohol, or are tolerant of children's use, children are more likely to become drug abusers during adolescence. The risk is further increased if parents involve children in their own drug (or alcohol) using behavior, for example, asking the child to light the parent's cigarette or get the parent a beer from the refrigerator.

Family Climate – Protective Factors

Family Attachment.

Definition: The extent to which respondents feel close to and can share openly with their mother and father.

Questions: 119, 120, 123, 127

Reasoning: Young people who feel that they are a valued part of their family are less likely to engage in substance use and other problem behaviors.

Opportunities for Positive Involvement.

Definition: The extent to which respondents participate in family decision making, have opportunities to do fun things with their parents, and can share problems with their parents.

Questions: 121, 126, 128

Reasoning: Young people who are exposed to more opportunities to participate meaningfully in the responsibilities and activities of the family are less likely to engage in drug use and other problem behaviors.

Rewards for Positive Involvement.

Definition: The extent to which respondents report that their parents acknowledge and praise them for the good things they do, and that they enjoy spending time with their parents.

Questions: 118, 122, 124, 125

Reasoning: When parents, siblings, and other family members praise, encourage, and attend to things done well by their child, children are less likely to engage in substance use and problem behaviors.

APPENDIX C

DETAILED TABLES OF SUBSTANCE USE BY GRADE, GENDER, COUNTY, AND RACE/ETHNICITY

Alcohol - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	43.3%	27.3%	14.5%	14.9%
Grade:				
6th	76.0%	19.8%	3.0%	1.1%
7th	64.2%	26.0%	6.3%	3.4%
8th	48.9%	31.6%	11.5%	7.9%
9th	36.7%	32.8%	17.1%	13.4%
10th	27.2%	30.5%	20.8%	21.5%
11th	22.3%	27.3%	22.9%	27.6%
12th	17.9%	22.6%	23.7%	35.8%
Gender:				
Females	44.0%	28.6%	14.7%	12.8%
Males	42.6%	26.1%	14.3%	17.1%
County:				
Androscoggin	43.0%	26.9%	14.5%	15.6%
Aroostook	39.9%	26.8%	16.3%	17.0%
Cumberland	42.5%	23.8%	14.7%	18.9%
Franklin*	44.1%	25.6%	17.0%	13.3%
Hancock	47.9%	29.8%	10.6%	11.7%
Kennebec	46.2%	26.2%	15.4%	12.2%
Knox	40.5%	30.2%	14.9%	14.4%
Lincoln	37.5%	30.1%	14.2%	18.2%
Oxford	42.0%	28.7%	14.0%	15.3%
Penobscot	45.8%	28.0%	13.8%	12.4%
Piscataquis	43.3%	27.9%	13.5%	15.4%
Sagadahoc**	59.8%	27.4%	7.4%	5.3%
Somerset	42.3%	31.5%	15.7%	10.5%
Waldo	43.9%	26.3%	12.8%	16.9%
Washington	43.7%	28.1%	14.1%	14.1%
York	41.5%	29.7%	14.7%	14.2%
Race:				
White	42.8%	27.5%	14.8%	14.8%
Non-white	42.0%	27.7%	13.1%	17.3%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Alcohol - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	69.4%	23.2%	5.6%	1.9%
Grade:				
6th	91.5%	7.3%	0.8%	0.4%
7th	83.5%	13.6%	1.9%	1.0%
8th	74.9%	19.1%	4.2%	1.8%
9th	64.9%	26.6%	5.9%	2.5%
10th	58.3%	30.5%	8.4%	2.8%
11th	56.5%	32.0%	9.2%	2.3%
12th	48.9%	38.5%	10.1%	2.5%
Gender:				
Females	70.2%	23.8%	4.7%	1.3%
Males	68.6%	22.6%	6.3%	2.5%
County:				
Androscoggin	68.2%	23.6%	6.4%	1.8%
Aroostook	66.6%	25.3%	6.5%	1.5%
Cumberland	66.0%	25.6%	6.5%	1.9%
Franklin*	70.9%	20.3%	5.9%	2.8%
Hancock	72.0%	21.4%	4.1%	2.5%
Kennebec	73.2%	21.1%	4.4%	1.3%
Knox	68.3%	24.4%	5.3%	2.0%
Lincoln	64.4%	27.8%	6.2%	1.6%
Oxford	66.4%	25.1%	6.0%	2.4%
Penobscot	74.4%	19.4%	4.6%	1.6%
Piscataquis	71.3%	20.2%	6.1%	2.5%
Sagadahoc**	80.3%	15.7%	2.8%	1.3%
Somerset	72.9%	20.7%	4.4%	2.0%
Waldo	66.9%	23.4%	6.8%	2.9%
Washington	73.1%	20.9%	4.9%	1.1%
York	67.7%	24.6%	5.4%	2.3%
Race:				
White	69.3%	23.6%	5.5%	1.7%
Non-white	66.8%	22.9%	6.4%	4.0%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Binge Drinking - Two Week Use

	No Use	1 time	2 times	3 to 5 times	6 to 9 times	10 or more times
Total	84.5%	6.3%	3.6%	3.4%	1.1%	1.0%
Grade:						
6th	97.7%	1.5%	0.2%	0.3%	0.1%	0.2%
7th	94.4%	2.6%	0.8%	1.4%	0.3%	0.5%
8th	88.6%	4.5%	2.6%	2.4%	0.9%	1.0%
9th	82.7%	7.1%	4.4%	3.3%	1.5%	1.0%
10th	77.9%	9.0%	4.9%	5.2%	1.6%	1.4%
11th	75.1%	9.5%	5.9%	6.5%	1.8%	1.2%
12th	70.5%	11.9%	8.2%	5.6%	2.2%	1.7%
Gender:						
Females	86.7%	6.1%	3.2%	2.7%	0.8%	0.6%
Males	82.4%	6.5%	4.1%	4.0%	1.5%	1.4%
County:						
Androscoggin	84.2%	6.8%	3.2%	3.9%	1.1%	0.9%
Aroostook	82.8%	7.0%	4.4%	3.7%	1.1%	1.0%
Cumberland	82.1%	6.8%	4.6%	4.0%	1.3%	1.1%
Franklin*	83.0%	6.0%	3.2%	4.3%	0.9%	2.6%
Hancock	87.5%	6.0%	1.9%	3.4%	0.3%	0.8%
Kennebec	86.3%	6.4%	3.1%	2.6%	0.9%	0.6%
Knox	82.9%	7.4%	4.2%	3.1%	1.1%	1.3%
Lincoln	81.3%	8.6%	4.8%	3.8%	1.4%	0.1%
Oxford	83.5%	6.3%	3.8%	3.6%	1.3%	1.5%
Penobscot	87.5%	4.9%	3.5%	2.5%	1.0%	0.7%
Piscataquis	84.6%	6.3%	3.6%	2.9%	1.4%	1.2%
Sagadahoc**	92.2%	3.8%	1.3%	1.8%	0.4%	0.5%
Somerset	88.4%	4.1%	1.8%	3.4%	1.4%	0.9%
Waldo	81.6%	6.5%	3.3%	5.1%	1.9%	1.6%
Washington	86.7%	4.7%	4.1%	2.9%	0.6%	1.0%
York	83.9%	6.9%	3.6%	3.0%	1.4%	1.1%
Race:						
White	84.6%	6.4%	3.7%	3.4%	1.0%	0.9%
Non-white	82.1%	6.2%	4.0%	3.6%	1.9%	2.2%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Marijuana - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	71.3%	9.5%	6.1%	13.0%
Grade:				
6th	96.5%	2.3%	0.5%	0.7%
7th	91.3%	4.5%	2.0%	2.3%
8th	82.2%	7.8%	3.8%	6.2%
9th	68.3%	12.1%	6.8%	12.8%
10th	56.9%	13.0%	8.8%	21.3%
11th	49.1%	15.2%	10.7%	25.1%
12th	44.7%	14.1%	12.6%	28.6%
Gender:				
Females	73.6%	9.2%	6.4%	10.8%
Males	69.0%	9.8%	5.9%	15.4%
County:				
Androscoggin	68.5%	9.6%	5.9%	16.1%
Aroostook	70.0%	10.3%	6.1%	13.5%
Cumberland	68.8%	9.6%	6.2%	15.4%
Franklin*	70.1%	8.8%	6.5%	14.6%
Hancock	78.3%	7.6%	5.0%	9.1%
Kennebec	72.0%	9.4%	6.6%	12.0%
Knox	68.5%	10.9%	5.7%	14.9%
Lincoln	63.8%	11.4%	9.2%	15.6%
Oxford	72.6%	9.5%	6.1%	11.8%
Penobscot	73.3%	9.0%	6.0%	11.8%
Piscataquis	71.3%	8.6%	6.9%	13.3%
Sagadahoc**	89.1%	5.1%	2.3%	3.6%
Somerset	72.2%	10.8%	4.8%	12.2%
Waldo	71.5%	8.9%	6.1%	13.6%
Washington	73.3%	9.0%	5.7%	12.0%
York	72.1%	10.1%	6.6%	11.2%
Race:				
White	71.1%	9.7%	6.2%	13.0%
Non-white	69.1%	9.5%	5.8%	15.6%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Marijuana - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	84.6%	7.4%	3.7%	4.3%
Grade:				
6th	98.3%	1.0%	0.3%	0.5%
7th	95.4%	2.8%	1.0%	0.8%
8th	90.1%	5.3%	2.5%	2.1%
9th	83.1%	8.8%	3.9%	4.1%
10th	76.3%	10.9%	5.9%	6.8%
11th	73.5%	12.5%	6.8%	7.1%
12th	71.0%	12.8%	6.6%	9.6%
Gender:				
Females	86.6%	7.3%	3.3%	2.8%
Males	82.6%	7.5%	4.1%	5.8%
County:				
Androscoggin	81.7%	8.2%	4.5%	5.6%
Aroostook	83.5%	7.9%	3.8%	4.8%
Cumberland	83.2%	8.4%	3.7%	4.8%
Franklin*	85.3%	4.3%	2.5%	7.9%
Hancock	86.3%	6.3%	3.7%	3.7%
Kennebec	85.2%	8.1%	3.8%	2.9%
Knox	81.2%	9.4%	5.0%	4.5%
Lincoln	80.6%	10.1%	4.7%	4.6%
Oxford	84.6%	7.5%	4.1%	3.7%
Penobscot	87.1%	6.6%	3.0%	3.2%
Piscataquis	84.5%	6.3%	4.5%	4.7%
Sagadahoc**	92.9%	4.5%	1.3%	1.3%
Somerset	85.9%	4.8%	4.3%	5.0%
Waldo	83.9%	7.0%	4.3%	4.8%
Washington	86.4%	6.6%	3.0%	4.0%
York	85.8%	7.1%	3.3%	3.7%
Race:				
White	84.6%	7.5%	3.7%	4.1%
Non-white	82.7%	7.2%	4.3%	5.8%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Smokeless Tobacco - Lifetime Use

	Never	Once or Twice	Once in a while, but not regularly	Regularly in the past	Regularly now
Total	86.4%	7.8%	2.8%	1.6%	1.4%
Grade:					
6th	95.5%	3.1%	0.5%	0.3%	0.6%
7th	92.6%	4.4%	1.6%	0.7%	0.8%
8th	89.8%	5.7%	2.3%	1.0%	1.1%
9th	86.1%	8.0%	2.6%	1.9%	1.4%
10th	82.3%	10.5%	4.0%	1.8%	1.5%
11th	78.8%	11.9%	4.7%	2.4%	2.2%
12th	75.9%	13.1%	4.7%	3.7%	2.6%
Gender:					
Females	92.7%	4.5%	1.3%	0.6%	0.9%
Males	79.6%	11.3%	4.4%	2.7%	2.0%
County:					
Androscoggin	87.1%	6.7%	2.6%	2.2%	1.4%
Aroostook	84.5%	9.2%	3.6%	1.5%	1.2%
Cumberland	86.0%	8.3%	3.0%	1.6%	1.2%
Franklin*	82.1%	6.5%	6.3%	2.4%	2.7%
Hancock	90.4%	6.5%	1.3%	0.7%	1.2%
Kennebec	90.5%	6.1%	1.5%	1.1%	0.7%
Knox	85.8%	7.9%	2.8%	1.9%	1.5%
Lincoln	84.5%	11.0%	1.6%	1.7%	1.2%
Oxford	81.3%	8.8%	4.4%	2.6%	2.9%
Penobscot	86.8%	7.9%	3.1%	1.2%	1.0%
Piscataquis	84.2%	9.6%	2.4%	1.8%	2.0%
Sagadahoc**	94.8%	3.6%	0.8%	0.4%	0.5%
Somerset	84.7%	8.3%	3.7%	1.2%	2.0%
Waldo	87.5%	6.8%	2.9%	1.1%	1.7%
Washington	87.2%	8.5%	2.5%	0.9%	0.9%
York	85.7%	7.8%	2.4%	2.2%	1.9%
Race:					
White	86.5%	7.8%	2.8%	1.5%	1.4%
Non-white	84.1%	8.4%	3.6%	1.9%	1.9%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Smokeless Tobacco - 30 Day Use

	Never	Once or Twice	Once or twice a week	About once a day	More than once a day
Total	95.5%	2.4%	0.7%	0.5%	0.9%
Grade:					
6th	98.4%	0.9%	0.2%	0.3%	0.2%
7th	96.5%	2.0%	0.8%	0.3%	0.4%
8th	95.8%	2.2%	0.8%	0.6%	0.7%
9th	95.3%	2.8%	0.6%	0.4%	0.9%
10th	94.7%	2.9%	0.9%	0.6%	1.0%
11th	94.0%	3.0%	0.7%	0.8%	1.5%
12th	93.6%	3.3%	0.9%	0.7%	1.5%
Gender:					
Females	97.6%	1.3%	0.3%	0.3%	0.4%
Males	93.3%	3.5%	1.0%	0.8%	1.3%
County:					
Androscoggin	96.1%	2.0%	0.6%	0.5%	0.8%
Aroostook	95.5%	2.7%	0.6%	0.5%	0.8%
Cumberland	95.7%	2.5%	0.5%	0.4%	0.9%
Franklin*	91.7%	5.5%	1.9%	0.0%	0.9%
Hancock	97.2%	1.1%	0.0%	0.0%	1.7%
Kennebec	97.8%	1.6%	0.1%	0.3%	0.3%
Knox	93.8%	3.2%	0.9%	0.8%	1.2%
Lincoln	96.0%	2.1%	1.1%	0.4%	0.4%
Oxford	92.1%	3.8%	1.3%	1.2%	1.7%
Penobscot	96.5%	2.1%	0.3%	0.5%	0.7%
Piscataquis	95.0%	2.5%	1.3%	0.4%	0.9%
Sagadahoc**	97.7%	1.7%	0.1%	0.2%	0.4%
Somerset	95.1%	2.3%	1.3%	1.1%	0.2%
Waldo	95.3%	2.6%	1.1%	0.3%	0.7%
Washington	95.9%	2.2%	0.6%	0.5%	0.7%
York	94.5%	2.5%	1.0%	0.8%	1.2%
Race:					
White	95.7%	2.3%	0.7%	0.5%	0.8%
Non-white	93.6%	3.4%	0.7%	0.9%	1.4%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Cigarettes - Lifetime Use

	Never	Once or Twice	Once in a while, but not regularly	Regularly in the past	Regularly now
Total	57.6%	16.9%	9.0%	7.4%	9.2%
Grade:					
6th	83.3%	10.8%	2.4%	2.0%	1.5%
7th	73.4%	14.5%	5.6%	4.4%	2.1%
8th	63.9%	16.0%	8.3%	6.2%	5.6%
9th	53.8%	18.7%	9.4%	8.6%	9.4%
10th	44.5%	19.9%	10.9%	10.2%	14.5%
11th	38.4%	21.0%	14.3%	10.9%	15.4%
12th	37.0%	18.4%	13.9%	11.4%	19.3%
Gender:					
Females	56.7%	16.4%	9.5%	7.6%	9.8%
Males	58.5%	17.4%	8.4%	7.2%	8.5%
County:					
Androscoggin	54.7%	16.6%	6.9%	9.6%	12.2%
Aroostook	49.4%	17.9%	10.4%	8.2%	14.2%
Cumberland	59.4%	15.2%	9.4%	7.5%	8.5%
Franklin*	54.9%	14.5%	9.1%	11.8%	9.8%
Hancock	58.8%	19.4%	7.6%	6.3%	7.9%
Kennebec	60.2%	16.4%	9.3%	5.6%	8.5%
Knox	54.7%	19.9%	10.2%	7.5%	7.6%
Lincoln	59.6%	18.5%	10.9%	5.9%	5.1%
Oxford	53.9%	16.9%	10.9%	8.4%	10.0%
Penobscot	60.0%	15.5%	8.1%	7.9%	8.6%
Piscataquis	54.7%	16.1%	11.2%	7.5%	10.5%
Sagadahoc**	75.4%	13.4%	5.1%	3.9%	2.2%
Somerset	52.4%	20.2%	11.5%	6.1%	9.8%
Waldo	54.0%	18.2%	9.7%	6.4%	11.7%
Washington	53.8%	18.9%	9.9%	7.2%	10.3%
York	59.8%	17.9%	7.6%	7.0%	7.7%
Race:					
White	57.6%	16.8%	9.1%	7.3%	9.3%
Non-white	53.2%	18.6%	9.0%	9.4%	9.7%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Cigarettes - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	82.7%	10.9%	5.3%	1.1%
Grade:				
6th	95.8%	3.7%	0.3%	0.2%
7th	91.8%	6.8%	0.9%	0.5%
8th	86.5%	10.0%	2.6%	0.9%
9th	81.7%	11.9%	5.2%	1.2%
10th	76.3%	14.0%	8.3%	1.4%
11th	72.6%	15.9%	9.8%	1.7%
12th	69.1%	16.6%	12.6%	1.7%
Gender:				
Females	82.0%	11.9%	5.2%	0.9%
Males	83.5%	9.8%	5.5%	1.3%
County:				
Androscoggin	79.4%	11.8%	7.5%	1.3%
Aroostook	76.5%	13.8%	8.7%	1.1%
Cumberland	83.1%	10.8%	4.9%	1.1%
Franklin*	79.9%	11.8%	6.7%	1.6%
Hancock	86.0%	8.6%	4.4%	1.1%
Kennebec	84.9%	9.9%	4.6%	0.6%
Knox	82.0%	12.7%	4.0%	1.3%
Lincoln	86.6%	9.6%	3.7%	0.1%
Oxford	78.7%	14.9%	5.3%	1.1%
Penobscot	84.8%	8.6%	5.6%	1.0%
Piscataquis	81.3%	11.5%	5.6%	1.7%
Sagadahoc**	92.2%	6.6%	1.0%	0.1%
Somerset	80.7%	11.9%	5.7%	1.7%
Waldo	77.9%	15.1%	5.5%	1.5%
Washington	81.3%	11.8%	5.7%	1.2%
York	84.8%	9.9%	4.2%	1.1%
Race:				
White	82.6%	11.0%	5.4%	1.0%
Non-white	81.2%	11.5%	5.2%	2.2%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

LSD or Other Psychedelics - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	92.4%	4.8%	1.8%	1.0%
Grade:				
6th	99.0%	0.7%	0.2%	0.2%
7th	98.2%	1.1%	0.5%	0.1%
8th	95.9%	2.9%	0.7%	0.5%
9th	92.9%	4.5%	1.5%	1.1%
10th	89.0%	7.2%	2.8%	1.0%
11th	86.6%	8.3%	3.1%	2.0%
12th	82.8%	10.3%	4.8%	2.1%
Gender:				
Females	93.7%	4.3%	1.4%	0.6%
Males	91.3%	5.1%	2.3%	1.3%
County:				
Androscoggin	91.9%	5.8%	1.7%	0.6%
Aroostook	92.5%	5.3%	1.6%	0.5%
Cumberland	89.5%	5.9%	2.7%	1.9%
Franklin*	93.2%	3.7%	2.5%	0.6%
Hancock	95.4%	3.2%	0.6%	0.8%
Kennebec	93.7%	4.2%	1.8%	0.4%
Knox	91.7%	5.2%	1.9%	1.2%
Lincoln	88.7%	7.4%	3.1%	0.8%
Oxford	93.3%	4.4%	1.5%	0.7%
Penobscot	93.4%	4.7%	1.1%	0.9%
Piscataquis	92.0%	4.3%	2.9%	0.8%
Sagadahoc**	97.3%	2.0%	0.3%	0.5%
Somerset	94.6%	2.7%	1.8%	0.9%
Waldo	92.4%	4.6%	2.0%	1.0%
Washington	93.7%	3.8%	1.6%	0.9%
York	93.5%	4.2%	1.6%	0.8%
Race:				
White	92.6%	4.7%	1.8%	0.9%
Non-white	89.9%	6.0%	2.5%	1.7%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

LSD or Other Psychedelics - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	97.2%	2.2%	0.4%	0.2%
Grade:				
6th	99.4%	0.4%	0.1%	0.1%
7th	98.8%	1.0%	0.2%	0.1%
8th	98.0%	1.4%	0.4%	0.2%
9th	96.6%	2.5%	0.5%	0.4%
10th	96.2%	3.3%	0.4%	0.1%
11th	95.5%	3.6%	0.5%	0.4%
12th	95.6%	3.6%	0.6%	0.2%
Gender:				
Females	97.9%	1.7%	0.2%	0.1%
Males	96.5%	2.6%	0.5%	0.3%
County:				
Androscoggin	96.6%	3.0%	0.2%	0.2%
Aroostook	97.8%	1.8%	0.3%	0.1%
Cumberland	96.6%	2.7%	0.5%	0.2%
Franklin*	96.7%	2.5%	0.8%	0.0%
Hancock	97.8%	1.4%	0.8%	0.0%
Kennebec	97.5%	2.2%	0.2%	0.1%
Knox	96.2%	2.9%	0.5%	0.4%
Lincoln	97.8%	1.9%	0.3%	0.0%
Oxford	97.1%	2.4%	0.3%	0.2%
Penobscot	98.0%	1.4%	0.4%	0.3%
Piscataquis	95.2%	3.7%	0.8%	0.3%
Sagadahoc**	98.5%	1.2%	0.3%	0.0%
Somerset	97.8%	1.8%	0.4%	0.0%
Waldo	96.0%	2.9%	0.6%	0.4%
Washington	97.9%	1.6%	0.3%	0.2%
York	97.4%	1.9%	0.2%	0.4%
Race:				
White	97.4%	2.2%	0.3%	0.2%
Non-white	95.7%	2.9%	0.8%	0.6%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Cocaine or Crack - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	95.4%	3.2%	0.7%	0.7%
Grade:				
6th	98.4%	1.2%	0.1%	0.2%
7th	97.9%	1.5%	0.4%	0.2%
8th	96.2%	2.5%	0.7%	0.7%
9th	95.0%	3.3%	0.9%	0.8%
10th	94.3%	4.5%	0.8%	0.5%
11th	93.3%	4.8%	0.8%	1.2%
12th	92.1%	5.3%	1.3%	1.2%
Gender:				
Females	96.2%	2.9%	0.5%	0.3%
Males	94.7%	3.4%	0.8%	1.0%
County:				
Androscoggin	94.8%	4.1%	0.6%	0.4%
Aroostook	95.2%	3.4%	0.9%	0.5%
Cumberland	95.0%	3.2%	0.6%	1.1%
Franklin*	91.6%	6.9%	0.0%	1.4%
Hancock	96.6%	1.9%	0.7%	0.8%
Kennebec	96.7%	2.4%	0.6%	0.3%
Knox	94.5%	3.6%	0.8%	1.0%
Lincoln	94.2%	4.3%	1.0%	0.5%
Oxford	94.8%	3.4%	1.1%	0.6%
Penobscot	96.2%	2.7%	0.6%	0.5%
Piscataquis	94.5%	3.3%	1.3%	0.9%
Sagadahoc**	97.3%	1.9%	0.0%	0.8%
Somerset	97.3%	2.2%	0.6%	0.0%
Waldo	93.9%	4.5%	0.8%	0.8%
Washington	95.1%	3.6%	0.8%	0.6%
York	95.6%	3.0%	0.7%	0.8%
Race:				
White	95.7%	3.1%	0.6%	0.5%
Non-white	92.2%	4.4%	1.4%	1.9%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Cocaine or Crack - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	98.2%	1.2%	0.4%	0.3%
Grade:				
6th	99.3%	0.4%	0.2%	0.1%
7th	98.9%	0.7%	0.3%	0.1%
8th	97.9%	1.4%	0.4%	0.3%
9th	98.0%	1.2%	0.4%	0.4%
10th	98.3%	1.3%	0.2%	0.2%
11th	97.5%	1.5%	0.6%	0.3%
12th	97.3%	2.0%	0.3%	0.4%
Gender:				
Females	98.7%	0.9%	0.3%	0.1%
Males	97.7%	1.4%	0.4%	0.4%
County:				
Androscoggin	98.0%	1.6%	0.2%	0.1%
Aroostook	98.4%	1.0%	0.3%	0.3%
Cumberland	98.1%	1.3%	0.4%	0.3%
Franklin*	98.8%	0.5%	0.7%	0.0%
Hancock	98.5%	0.9%	0.4%	0.2%
Kennebec	98.5%	1.2%	0.2%	0.2%
Knox	97.7%	1.5%	0.5%	0.4%
Lincoln	97.8%	1.6%	0.5%	0.1%
Oxford	97.5%	1.6%	0.5%	0.4%
Penobscot	98.3%	1.0%	0.3%	0.3%
Piscataquis	97.5%	1.9%	0.3%	0.2%
Sagadahoc**	99.2%	0.1%	0.3%	0.3%
Somerset	99.4%	0.6%	0.0%	0.0%
Waldo	97.4%	2.2%	0.3%	0.2%
Washington	98.6%	1.1%	0.1%	0.2%
York	97.8%	1.2%	0.6%	0.5%
Race:				
White	98.4%	1.2%	0.3%	0.2%
Non-white	96.5%	1.7%	0.9%	0.9%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Inhalants - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	86.6%	10.2%	1.9%	1.3%
Grade:				
6th	88.7%	9.1%	1.4%	0.7%
7th	85.8%	10.8%	1.9%	1.5%
8th	85.2%	10.7%	2.3%	1.8%
9th	85.9%	10.2%	2.3%	1.5%
10th	86.2%	11.1%	1.6%	1.0%
11th	87.9%	9.2%	1.8%	1.1%
12th	87.4%	9.7%	1.7%	1.2%
Gender:				
Females	86.8%	10.5%	1.8%	0.9%
Males	86.4%	9.9%	2.0%	1.7%
County:				
Androscoggin	86.0%	10.8%	1.7%	1.5%
Aroostook	85.7%	10.8%	2.3%	1.3%
Cumberland	88.0%	8.7%	1.8%	1.4%
Franklin*	85.1%	10.3%	3.0%	1.7%
Hancock	86.9%	11.3%	1.4%	0.5%
Kennebec	86.2%	10.6%	1.9%	1.3%
Knox	82.7%	12.2%	3.4%	1.7%
Lincoln	88.1%	8.9%	2.3%	0.7%
Oxford	83.9%	12.3%	2.3%	1.5%
Penobscot	89.6%	8.0%	1.6%	0.8%
Piscataquis	82.6%	13.0%	2.5%	2.0%
Sagadahoc**	90.4%	7.5%	1.1%	1.1%
Somerset	84.1%	12.9%	1.5%	1.5%
Waldo	85.4%	11.1%	2.0%	1.5%
Washington	87.3%	10.5%	1.2%	1.0%
York	85.9%	10.8%	1.9%	1.5%
Race:				
White	86.9%	10.2%	1.7%	1.2%
Non-white	83.2%	11.2%	3.2%	2.3%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Inhalants - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	95.3%	3.7%	0.7%	0.4%
Grade:				
6th	95.2%	3.9%	0.6%	0.3%
7th	92.9%	5.6%	1.1%	0.4%
8th	93.6%	4.9%	1.0%	0.5%
9th	95.5%	3.4%	0.7%	0.4%
10th	96.3%	3.2%	0.2%	0.2%
11th	97.1%	2.3%	0.4%	0.3%
12th	97.7%	1.7%	0.3%	0.4%
Gender:				
Females	95.8%	3.5%	0.5%	0.2%
Males	94.8%	3.8%	0.8%	0.5%
County:				
Androscoggin	95.5%	3.5%	0.8%	0.3%
Aroostook	95.6%	3.3%	0.7%	0.4%
Cumberland	95.9%	3.2%	0.6%	0.4%
Franklin*	94.8%	5.2%	0.0%	0.0%
Hancock	95.5%	3.2%	0.6%	0.7%
Kennebec	94.9%	4.1%	0.7%	0.3%
Knox	93.0%	5.1%	1.5%	0.4%
Lincoln	96.4%	2.9%	0.5%	0.1%
Oxford	93.3%	5.2%	1.0%	0.5%
Penobscot	96.4%	2.9%	0.4%	0.3%
Piscataquis	93.5%	4.8%	1.0%	0.6%
Sagadahoc**	95.8%	3.1%	0.8%	0.3%
Somerset	94.8%	4.6%	0.4%	0.2%
Waldo	95.5%	3.2%	0.8%	0.6%
Washington	95.4%	4.0%	0.4%	0.3%
York	94.8%	3.9%	0.8%	0.6%
Race:				
White	95.5%	3.6%	0.6%	0.3%
Non-white	93.5%	4.6%	1.3%	0.7%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Stimulants - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	92.4%	5.0%	1.4%	1.3%
Grade:				
6th	98.8%	0.8%	0.3%	0.2%
7th	97.5%	1.8%	0.5%	0.2%
8th	94.5%	3.7%	0.9%	0.9%
9th	91.0%	6.1%	1.4%	1.5%
10th	89.1%	7.2%	2.0%	1.7%
11th	88.1%	7.5%	2.2%	2.2%
12th	85.8%	9.2%	2.6%	2.4%
Gender:				
Females	93.3%	4.8%	1.1%	0.8%
Males	91.5%	5.1%	1.7%	1.7%
County:				
Androscoggin	91.9%	6.0%	1.1%	1.0%
Aroostook	90.3%	6.5%	1.9%	1.4%
Cumberland	91.3%	5.1%	1.7%	1.9%
Franklin*	90.9%	5.5%	2.6%	0.9%
Hancock	93.5%	3.8%	1.6%	1.2%
Kennebec	93.9%	4.5%	1.2%	0.4%
Knox	90.6%	5.3%	2.1%	2.0%
Lincoln	92.7%	4.6%	0.8%	1.9%
Oxford	93.3%	4.9%	0.9%	0.9%
Penobscot	93.5%	4.4%	0.9%	1.2%
Piscataquis	91.3%	5.8%	1.3%	1.6%
Sagadahoc**	96.6%	2.8%	0.4%	0.2%
Somerset	93.5%	4.2%	1.5%	0.8%
Waldo	90.1%	7.1%	1.5%	1.4%
Washington	93.8%	3.4%	1.5%	1.3%
York	92.6%	5.0%	1.2%	1.3%
Race:				
White	92.7%	4.9%	1.3%	1.1%
Non-white	88.6%	6.3%	2.3%	2.8%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Stimulants - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	97.0%	2.3%	0.5%	0.3%
Grade:				
6th	99.2%	0.6%	0.0%	0.1%
7th	99.0%	0.7%	0.2%	0.1%
8th	97.1%	2.4%	0.3%	0.2%
9th	96.3%	2.7%	0.6%	0.4%
10th	96.3%	2.9%	0.7%	0.2%
11th	95.5%	3.4%	0.6%	0.5%
12th	95.0%	3.5%	1.0%	0.5%
Gender:				
Females	97.6%	1.9%	0.3%	0.2%
Males	96.3%	2.7%	0.7%	0.4%
County:				
Androscoggin	97.2%	2.0%	0.7%	0.1%
Aroostook	96.4%	2.8%	0.7%	0.1%
Cumberland	96.3%	2.8%	0.4%	0.4%
Franklin*	97.9%	1.9%	0.2%	0.0%
Hancock	96.3%	2.8%	0.2%	0.6%
Kennebec	97.9%	2.1%	0.1%	0.0%
Knox	95.6%	2.9%	0.6%	0.9%
Lincoln	97.4%	2.1%	0.1%	0.4%
Oxford	97.5%	1.8%	0.4%	0.3%
Penobscot	97.2%	1.7%	0.7%	0.4%
Piscataquis	96.4%	1.9%	1.3%	0.5%
Sagadahoc**	98.4%	1.3%	0.3%	0.0%
Somerset	96.5%	2.5%	1.0%	0.0%
Waldo	96.0%	3.0%	0.7%	0.2%
Washington	97.3%	1.8%	0.7%	0.2%
York	97.3%	2.1%	0.2%	0.3%
Race:				
White	97.2%	2.2%	0.4%	0.2%
Non-white	94.5%	3.7%	0.9%	0.9%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Other Illegal Drugs - Lifetime Use

	No Use	Low Use	Medium Use	High Use
Total	85.6%	7.2%	2.5%	4.7%
Grade:				
6th	96.8%	2.3%	0.4%	0.4%
7th	93.3%	4.2%	1.0%	1.5%
8th	88.2%	6.3%	2.0%	3.5%
9th	82.9%	8.8%	2.9%	5.5%
10th	78.6%	10.3%	3.8%	7.4%
11th	77.6%	10.2%	4.0%	8.2%
12th	79.5%	9.5%	3.8%	7.3%
Gender:				
Females	87.2%	7.0%	2.3%	3.4%
Males	84.1%	7.3%	2.6%	6.0%
County:				
Androscoggin	83.7%	8.1%	2.7%	5.4%
Aroostook	85.1%	7.3%	2.8%	4.8%
Cumberland	85.1%	6.9%	2.8%	5.2%
Franklin*	81.4%	6.3%	3.3%	9.0%
Hancock	88.6%	6.0%	2.4%	3.0%
Kennebec	86.5%	6.8%	3.2%	3.5%
Knox	83.2%	8.7%	2.5%	5.7%
Lincoln	85.0%	8.5%	1.2%	5.3%
Oxford	86.5%	7.4%	2.6%	3.6%
Penobscot	87.2%	6.4%	2.1%	4.3%
Piscataquis	83.4%	6.5%	3.4%	6.7%
Sagadahoc**	90.0%	6.6%	1.6%	1.8%
Somerset	82.1%	9.7%	1.6%	6.6%
Waldo	84.9%	7.5%	2.6%	5.0%
Washington	86.1%	6.4%	3.1%	4.4%
York	86.8%	7.6%	1.8%	3.8%
Race:				
White	86.0%	7.1%	2.4%	4.5%
Non-white	81.0%	8.6%	3.1%	7.2%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

Other Illegal Drugs - 30 Day Use

	No Use	Low Use	Medium Use	High Use
Total	92.9%	3.9%	1.6%	1.6%
Grade:				
6th	98.6%	0.9%	0.2%	0.2%
7th	96.7%	2.1%	0.6%	0.6%
8th	93.9%	3.4%	1.3%	1.5%
9th	91.7%	4.5%	2.1%	1.7%
10th	89.0%	5.8%	2.6%	2.6%
11th	89.1%	6.4%	2.6%	2.0%
12th	90.3%	4.7%	2.4%	2.6%
Gender:				
Females	94.0%	3.7%	1.3%	1.0%
Males	91.8%	4.1%	1.9%	2.2%
County:				
Androscoggin	91.3%	5.0%	2.0%	1.6%
Aroostook	92.5%	4.4%	1.4%	1.6%
Cumberland	92.6%	4.3%	1.6%	1.5%
Franklin*	92.3%	2.8%	1.0%	3.9%
Hancock	94.6%	2.7%	1.2%	1.6%
Kennebec	93.1%	4.2%	1.5%	1.1%
Knox	89.5%	5.9%	2.1%	2.4%
Lincoln	93.7%	3.1%	1.9%	1.4%
Oxford	93.4%	3.6%	1.7%	1.3%
Penobscot	94.3%	2.9%	1.4%	1.4%
Piscataquis	90.9%	4.1%	2.6%	2.4%
Sagadahoc**	95.5%	2.9%	0.8%	0.8%
Somerset	91.2%	4.4%	2.1%	2.3%
Waldo	92.0%	4.0%	2.3%	1.7%
Washington	93.0%	3.6%	1.7%	1.7%
York	93.6%	3.4%	1.5%	1.5%
Race:				
White	93.1%	3.8%	1.6%	1.5%
Non-white	90.5%	4.5%	2.2%	2.8%

Notes:

**No 9th grade students were surveyed in Franklin County.*

***No 9th through 12th grade students were surveyed in Sagadahoc County.*

APPENDIX D

SURVEY INSTRUMENT